





OFFICIAL YEAR BOOK
OF THE COMMONWEALTH OF AUSTRALIA







THE COMMONWEALTH ARMS

“Quarterly of six, the first quarter Argent a Cross Gules charged with a Lion passant guardant between on each limb a Mullet of eight points Or; the second, Azure five Mullets, one of eight two of seven one of six and one of five points of the first (representing the Constellation of the Southern Cross) ensigned with an Imperial Crown proper; the third of the first, a Maltese Cross of the fourth, surmounted by a like Imperial Crown; the fourth of the third, on a Perch wreathed Vert and Gules an Australian Piping Shrike displayed also proper; the fifth also Or a Swan naiant to the sinister Sable; the last of the first a Lion Passant of the second, the whole within a Bordure Ermine”; for the Crest On a Wreath Or and Azure “A Seven pointed Star Or,” and for supporters “dexter A Kangaroo, sinister An Emu, both proper”.

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OFFICIAL
YEAR BOOK
OF THE
COMMONWEALTH
OF AUSTRALIA

No. 52, 1966

Prepared under instructions from The Right Honorable the Treasurer by

K. M. ARCHER

COMMONWEALTH STATISTICIAN

Australia
COMMONWEALTH BUREAU OF CENSUS AND STATISTICS

CANBERRA, AUSTRALIA

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PREFACE

By the Constitution of the Commonwealth of Australia, the Parliament of the Commonwealth is empowered, subject to the Constitution, 'to make laws for the peace, order, and good government of the Commonwealth, with respect to . . . Census and statistics.' In the exercise of the power so conferred, a Census and Statistics Act was passed in 1905, and in the year following the Commonwealth Bureau of Census and Statistics was created. The first Official Year Book was published early in 1908. The publication here presented is the fifty-second Official Year Book issued under the authority of the Commonwealth Government.

The synopsis included in former issues showing the general arrangement of the work has in this issue been incorporated in the table of contents (pages vii to xii). The special index (preceding the general index) provided at the end of the volume, together with certain references given in the various chapters, will assist in tracing in previous issues special articles and other more or less important miscellaneous matter which, in order to conserve space, have been omitted or abbreviated in the present volume. Where, in the general index, more than one reference to a subject is given, the chief reference (or references) has been specially indicated wherever possible.

This volume has been revised throughout; new matter has been added and several chapters have been considerably amended and rearranged. The following items may be especially mentioned.

Chapter 3. General Government. Rearrangement of text, new sections showing members of the Commonwealth Parliament and conspectus of referendums for alteration of the Constitution.

Chapter 12. Labour, Wages and Prices. New section dealing with Wholesale Price Index of Electrical Installation Materials.

Chapter 13. Oversea Transactions. Revised material covering trade legislation and trade agreements. Section relating to oversea investment by private investors transferred from former chapter Private Finance.

Chapter 16. Public Justice. New section giving particulars of serious crime reported or becoming known to police.

Chapter 17. Public Health. Revised and enlarged section relating to public health legislation and administration.

Chapter 18. Education, Cultural Activities and Research. New section on outline of research in Australia.

Chapter 20. Private Finance. Revised sections relating to the adoption by Australia of a decimal currency, and the Australian note issue. New sections dealing with volume of money and finance companies.

Chapter 21. Public Finance. Revised material relating to Commonwealth finance including new tables dealing with the Commonwealth Public Account.

Chapter 23. Rural Industry. Special article, The Soils of Australia, prepared by officers of the Commonwealth Scientific and Industrial Research Organization.

Chapter 26. Mineral Industry. Re-arrangement of chapter and amplification of descriptive sections; new section reviewing recent developments in the mineral industry.

Chapter 29. The Territories of Australia. Increased tabular matter, particularly as regards production statistics.

Special article on Travel and Tourism in Australia, prepared by Mr. R. D. Piesse of the Australian National Travel Association.

The material in the Year Book has been carefully checked throughout, but I shall be grateful to those who will be kind enough to point out defects or make suggestions.

The statistics contained in the majority of the chapters of this volume relate to the years ended June or December 1965. More detailed statistics on subjects dealt with in the Year Book are available in the various annual printed reports published by this Bureau, and more recent statistics are contained in the *Digest of Current Economic Statistics* (monthly), the *Monthly Review of Business Statistics*, the *Quarterly Summary of Australian Statistics*, and in other publications issued monthly, quarterly, half-yearly, or yearly. These publications are listed in Statistical Publications of Australia (see the chapter Miscellaneous), and the last pages of this volume contain a list of current and recent printed publications, showing issue numbers, dates and prices.

The Appendix to this issue of the Year Book has been restricted, in order to conserve time and space, to only a few items instead of the former general advancing of series in the body of the book. The issue of chapters or groups of chapters as separate parts has also been discontinued.

With the issue this year of the first Official Year Book of South Australia, State Year Books are now published by the Deputy Commonwealth Statisticians of all States except Tasmania, and in that State the preparation of the first Official Year Book is nearing completion. Apart from Year Books, the Deputy Commonwealth Statisticians of all States issue a number of printed and mimeographed publications. These are listed on pages 1163-5 of the 1962 issue of the Year Book, and, together with publications of the central Bureau, in *Publications of the Commonwealth Bureau of Census and Statistics* issued by this Bureau.

My thanks are tendered to the Deputy Commonwealth Statisticians of the several States, who have collected and compiled the data on which a great part of the information given in the Year Book is based. Thanks are also tendered to the responsible officers of the various Commonwealth and State Departments and to others who have kindly, and often at considerable trouble, supplied information, and to the Government Printer and his staff for their services in printing this Year Book and in assisting and advising throughout its preparation.

K. M. ARCHER
Commonwealth Statistician

Commonwealth Bureau of Census and Statistics
Canberra, A.C.T., September 1966

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SYMBOLS AND OTHER FORMS OF USAGE IN THIS YEAR BOOK

The following symbols, where shown in columns of figures, mean:

- n.a. —not available.
- . . —nil or less than half the final digit shown, or not applicable.
- p —preliminary—figure or series subject to revision.
- r —figure or series revised since previous issue.
- n.e.i. —not elsewhere included.
- n.e.c.—not elsewhere classified.
- n.s. —not stated.

A blank space in a column of figures means that the figure concerned is not yet available.

The following abbreviations are used for the titles of the Australian States and Territories and the Commonwealth of Australia: N.S.W. (New South Wales), Vic. (Victoria), Qld (Queensland), S.A. (South Australia), W.A. (Western Australia), Tas. (Tasmania), N.T. (Northern Territory), A.C.T. (Australian Capital Territory), T.P.N.G. (Territory of Papua and New Guinea), Aust. (Australia), Cwlth (Commonwealth).

Yearly periods shown as e.g. 1965 refer to the year ended 31 December 1965; those shown as e.g. 1964–65 refer to the year ended 30 June 1965. Other yearly periods are specifically indicated. The range of years shown in table headings, e.g. 1901 to 1964–65, indicates the period covered, but does not necessarily imply that each intervening year is included.

Unless otherwise indicated, the British system of weights and measures is used. One short ton equals 2,000 lb.

Values are expressed in dollars (\$) or cents (c) Australian, with or without the letter A, unless another currency is specifically stated.

Any discrepancies between totals and sums of components in tables are due to rounding.



AUSTRALIAN DECIMAL CURRENCY DOLLAR (\$) / CENT (c) SYSTEM

On 14 February 1966, under the *Currency Act* 1965, a dollar/cent decimal currency system, with one dollar equal to 100 cents, was introduced in Australia.

The relationship between pounds, shillings and pence and dollars and cents as prescribed in the Act, is as follows:

1 pound = 2 dollars

1 shilling = 10 cents

1 penny = $\frac{1}{4}$ ths of a cent

In this issue of the Year Book monetary amounts have been converted to the equivalent amounts in the new system.

For further information see pages 671-4 of the chapter Private Finance.

DECIMAL CURRENCY CONVERSION TABLES

Conversion tables issued by the Decimal Currency Board are reproduced hereunder and on pages xv-xvii.

The conversions shown in these tables should not be taken as an official direction on the manner in which prices should be fixed or charges made. The Decimal Currency Board has no authority to fix prices or other charges.

EXACT EQUIVALENTS TABLE CONVERSION OF AMOUNTS OF £ s. d. TO \$ c

Pence	Cents*	Shillings	Cents	£ s. d.	\$
1	$\frac{5}{8}$ or .83333	1	10	10 0	1.00
2	$1\frac{3}{4}$ 1.66667	2	20	11 0	1.10
3	$2\frac{1}{2}$ 2.5	3	30	12 0	1.20
4	$3\frac{1}{2}$ 3.33333	4	40	13 0	1.30
5	$4\frac{1}{2}$ 4.16667	5	50	14 0	1.40
6	5 5	6	60	15 0	1.50
7	$5\frac{5}{8}$ 5.83333	7	70	16 0	1.60
8	$6\frac{3}{4}$ 6.66667	8	80	17 0	1.70
9	$7\frac{1}{2}$ 7.5	9	90	18 0	1.80
10	$8\frac{1}{2}$ 8.33333	10	100	19 0	1.90
11	$9\frac{1}{2}$ 9.16667	..	..	1 0 0	2.00
12	10 10	..	..	..	..

* Taken to nearest 5th decimal place.

The Exact Equivalents Table shows the relationships between pounds, shillings and pence, and dollars and cents as prescribed in the *Currency Act* 1965, namely:

1 pound = 2 dollars 1 shilling = 10 cents 1 penny = $\frac{1}{4}$ ths of a cent

This table should be used where it is necessary to obtain EXACT equivalents in decimal currency of amounts expressed in £ s. d. For example, where rates or unit prices are expressed in £ s. d. in agreements between contracting parties, this table may be used to convert them to their exact equivalents in \$ c.

BANKING AND ACCOUNTING TABLE
CONVERSION OF AMOUNTS OF £ s. d. TO DOLLARS AND WHOLE CENTS

Pence	Cents	Shillings	Cents	£ s. d.	\$
1	1	1	10	10 0	1.00
2	2	2	20	11 0	1.10
3	2	3	30	12 0	1.20
4	3	4	40	13 0	1.30
5	4	5	50	14 0	1.40
6	5	6	60	15 0	1.50
7	6	7	70	16 0	1.60
8	7	8	80	17 0	1.70
9	8	9	90	18 0	1.80
10	8	10	100	19 0	1.90
11	9	..	..	1 0 0	2.00
12	10	..	..	..	..

The Banking and Accounting Table converts £ s. d. amounts expressed in whole pence to \$ c amounts expressed in whole cents. To convert an amount of £ s. d. to dollars and cents—multiply the pounds by two—to give dollars. Add the equivalent of the shillings and pence,

$$\begin{aligned}
 &\text{e.g. } £23 \text{ } 17\text{s. } 10\text{d.} \\
 &\quad £23 (\times 2) = \$46.00 \\
 &\quad 17\text{s. } 10\text{d.} = \$1.78 \text{ (from table)} \\
 &\quad \hline
 &\quad £23 \text{ } 17\text{s. } 10\text{d.} = \$47.78
 \end{aligned}$$

'NEAREST PENNY' CONVERSION FOR USE WITH
PRICE COMPUTING INSTRUMENTS

Cents	Pence	Cents	Shillings
1	1	10	1
2	2	20	2
3	4	30	3
4	5	40	4
5	6	50	5
6	7	60	6
7	8	70	7
8	10	80	8
9	11	90	9
10	12	100 (= \$1)	10

NOTE. The exact value of 1c is $1\frac{1}{2}$ pence. Pence amounts have been rounded to the nearest penny; e.g. 2c = $2\frac{1}{2}$ d. or 2d. (to nearest penny).

To convert an amount of \$ c to £ s. d.
 Divide the dollars by two—to give pounds.
 Add the equivalent of the cents, e.g.
 $\$47.78$
 $\$47 (\div 2) = £23 \text{ } 10\text{s. } 0\text{d.}$
 $78\text{c} = 7\text{s. } 10\text{d. (from table)}$

 $\$47.78 = £23 \text{ } 17\text{s. } 10\text{d.}$

QUICK METHOD OF CONVERSION
 $\$2.83 = 283 \text{ cents}$
 Place a stroke before the units of cents—
 $28/3$
 Convert the units of cents—
 $28/4 \text{ (nearest penny)}$
 or £1 8s. 4d.

**'NEAREST HALFPENNY' CONVERSION FOR USE
WITH PRICE COMPUTING INSTRUMENTS**

Cents	Pence	Cents	Shillings
1	1	10	1
2	2½	20	2
3	3½	30	3
4	5	40	4
5	6	50	5
6	7	60	6
7	8½	70	7
8	9½	80	8
9	11	90	9
10	12	100 = (\$1)	10

NOTE. The exact value of 1c is 1½ pence. Pence amounts have been rounded to the nearest half penny; e.g. 2c = 2½d. or 2½d. (to nearest halfpenny).

To convert an amount of \$ c to £ s. d.
Divide the dollars by two—to give pounds.
Add the equivalent of the cents, e.g.

$$\begin{array}{rcl} \$47.78 & & \\ \$47 (\div 2) & = & £23 \text{ 10s. } 0\text{d.} \\ 78\text{c} & = & 7\text{s. } 9\frac{1}{2}\text{d.} \\ \hline \$47.78 & = & £23 \text{ 17s. } 9\frac{1}{2}\text{d.} \end{array}$$

QUICK METHOD OF CONVERSION

\$2.83 = 283 cents
Place a stroke before the units of cents—
28/3
Convert the units of cents—
28/3½ (nearest halfpenny)
or £1 8s. 3½d.

The two preceding tables have been produced as a guide for owners of decimal price computing instruments who may need to convert \$ c amounts to £ s. d.

COMPREHENSIVE CONVERSION TABLE

**CONVERSION OF AMOUNTS OF £ s. d. INTO DECIMAL CURRENCY TO
NEAREST WHOLE CENT**

The Comprehensive Conversion Table is in no sense designed to give official direction as to how prices expressed in £ s. d. should be converted into dollars and cents after the changeover to decimal currency. The Decimal Currency Board has no authority to fix prices or other charges and the Comprehensive Conversion Table merely shows the nearest whole cent equivalent of various £ s. d. amounts expressed to the nearest halfpenny. The only exceptions are threepence and ninepence where the cent equivalent is shown as half a cent below the exact value in the case of the threepence and half a cent higher in the case of the ninepence. Because the Comprehensive Conversion Table in most cases gives approximations only, it is not suitable for converting unit rates or prices. It should be used only for converting the final balance of an account or the amount due for payment by a debtor.

COMPREHENSIVE CONVERSION TABLE—*continued*

<i>s.</i>	<i>d.</i>	Cents	<i>s.</i>	<i>d.</i>	Cents	<i>s.</i>	<i>d.</i>	Cents	<i>s.</i>	<i>d.</i>	Cents	<i>s.</i>	<i>d.</i>	Cents
..	..	1 0½	10	2 0½	20	3 0½	30	4 0½	40	5 0½	50			
1	1	1 1	11	2 1	21	3 1	31	4 1	41	5 1	51			
1½	1	1 1½	11	2 1½	21	3 1½	31	4 1½	41	5 1½	51			
2	2	1 2	12	2 2	22	3 2	32	4 2	42	5 2	52			
2½	2	1 2½	12	2 2½	22	3 2½	32	4 2½	42	5 2½	52			
3	2	1 3	12	2 3	22	3 3	32	4 3	42	5 3	52			
3½	3	1 3½	13	2 3½	23	3 3½	33	4 3½	43	5 3½	53			
4	3	1 4	13	2 4	23	3 4	33	4 4	43	5 4	53			
4½	4	1 4½	14	2 4½	24	3 4½	34	4 4½	44	5 4½	54			
5	4	1 5	14	2 5	24	3 5	34	4 5	44	5 5	54			
5½	5	1 5½	15	2 5½	25	3 5½	35	4 5½	45	5 5½	55			
6	5	1 6	15	2 6	25	3 6	35	4 6	45	5 6	55			
6½	5	1 6½	15	2 6½	25	3 6½	35	4 6½	45	5 6½	55			
7	6	1 7	16	2 7	26	3 7	36	4 7	46	5 7	56			
7½	6	1 7½	16	2 7½	26	3 7½	36	4 7½	46	5 7½	56			
8	7	1 8	17	2 8	27	3 8	37	4 8	47	5 8	57			
8½	7	1 8½	17	2 8½	27	3 8½	37	4 8½	47	5 8½	57			
9	8	1 9	18	2 9	28	3 9	38	4 9	48	5 9	58			
9½	8	1 9½	18	2 9½	28	3 9½	38	4 9½	48	5 9½	58			
10	8	1 10	18	2 10	28	3 10	38	4 10	48	5 10	58			
10½	9	1 10½	19	2 10½	29	3 10½	39	4 10½	49	5 10½	59			
11	9	1 11	19	2 11	29	3 11	39	4 11	49	5 11	59			
11½	10	1 11½	20	2 11½	30	3 11½	40	4 11½	50	5 11½	60			
1 0	10	2 0	20	3 0	30	4 0	40	5 0	50	6 0	60			

								<i>s.</i>	<i>d.</i>	\$	£	\$
6 0½	60	7 0½	70	8 0½	80	9 0½	90	10 0	1.00	1	2.00	
6 1	61	7 1	71	8 1	81	9 1	91	11 0	1.10	2	4.00	
6 1½	61	7 1½	71	8 1½	81	9 1½	91	12 0	1.20	3	6.00	
6 2	62	7 2	72	8 2	82	9 2	92	13 0	1.30	4	8.00	
6 2½	62	7 2½	72	8 2½	82	9 2½	92	14 0	1.40	5	10.00	
6 3	62	7 3	72	8 3	82	9 3	92	15 0	1.50	6	12.00	
6 3½	63	7 3½	73	8 3½	83	9 3½	93	16 0	1.60	7	14.00	
6 4	63	7 4	73	8 4	83	9 4	93	17 0	1.70	8	16.00	
6 4½	64	7 4½	74	8 4½	84	9 4½	94	18 0	1.80	9	18.00	
6 5	64	7 5	74	8 5	84	9 5	94	19 0	1.90	10	20.00	
6 5½	65	7 5½	75	8 5½	85	9 5½	95	..	..	..	..
6 6	65	7 6	75	8 6	85	9 6	95	..	..	..	..
6 6½	65	7 6½	75	8 6½	85	9 6½	95	..	..	..	..
6 7	66	7 7	76	8 7	86	9 7	96	..	..	..	..
6 7½	66	7 7½	76	8 7½	86	9 7½	96	..	..	..	..
6 8	67	7 8	77	8 8	87	9 8	97	..	..	..	..
6 8½	67	7 8½	77	8 8½	87	9 8½	97	..	..	..	..
6 9	68	7 9	78	8 9	88	9 9	98	..	..	..	..
6 9½	68	7 9½	78	8 9½	88	9 9½	98	..	..	..	..
6 10	68	7 10	78	8 10	88	9 10	98	..	..	..	..
6 10½	69	7 10½	79	8 10½	89	9 10½	99	..	..	..	..
6 11	69	7 11	79	8 11	89	9 11	99	..	..	..	..
6 11½	70	7 11½	80	8 11½	90	9 11½	100	..	..	..	..
7 0	70	8 0	80	9 0	90	10 0	100	..	..	..	..

CORRIGENDA

Page

- 7—Section 8, third line—*for* selector *read* elector.
- 58—SOUTH AUSTRALIA—*for* Ministry (*from* 27 May 1965) *read* Ministry (*from* 10 March 1965).
- 74—*For Science Laboratories Act* 1965 *read* States Grants (Science Laboratories) Act 1965.
- 120—Bacon and ham, 1964–65—*for* 95,561 *read* 79,710.
 Caustic soda, 1964–65—*for* 69,198 *read* 69,879.
 Cheese, 1961–62—*for* 55,380 *read* 55,684.
- 121—Copper, refined, 1963–64 | 1964–65—*for* 90,890 | 56,112 *read* 89,222 | 55,773.
 Infants' and invalids' milk, 1964–65—*for* 45,505 *read* 45,179.
- 122—Milk condensed, etc.—
 Full cream, unsweetened, 1961–62 | 1962–63 | 1964–65—*for* 83,860 | 97,848 | 97,848
 read 73,922 | 73,021 | 98,403.
 Milk powder—
 Full cream, 1963–64 | 1964–65—*for* 42,169 | 42,495 *read* 42,179 | 42,541.
 Skim, 1964–65—*for* 105,930 *read* 106,139.
 Buttermilk, etc., 1961–62 | 1962–63 | 1963–64—*for* 18,918 | 21,831 | 22,139 *read*
 18,063 | 20,801 | 21,210.
 Paperboard, 1964–65—*for* 285,278 *read* 296,387.
- 123—Timber—
 From native logs, 1964–65—*for* 1,511,483 *read* 1,540,312.
- 136—table CONFECTIONERY, Value of materials used, 1960–61—*for* 36,767 *read* 35,767.
- 191—first sentence—*for* 1964 *read* 1965.
- 197—footnote (a)—*for* New York–Northeastern New Jersey urbanized area, which includes Elizabeth, Jersey City, Newark, Paterson and Yonkers *read* “Standard metropolitan statistical area” as defined in 1964. The population of New York–Northeastern New Jersey urbanized area, which includes Elizabeth, Jersey City, Newark, Paterson and Yonkers was 14,114,927 on 1 April 1960.
- 450—first table—South Australia—Port Lincoln, 1964–65, Net tons—*for* 5,451 *read* 545.
- 460—first table—Passenger-miles, Commonwealth *for* 120,947 *read* 120,977.
- 482—table—Embarkations, 1964–65—*for* 3,768,244 *read* 3,763,936.
- 542—second table—Civilian—Full time—Victoria | Australia—*for* 1,135 | 2,124 *read* 589 | 1,578.

CHAPTER 1

DISCOVERY, COLONIZATION AND FEDERATION OF AUSTRALIA

Early knowledge and discovery of Australia

The following paragraphs contain only a bare outline of the more important facts relating to the early history of Australian discovery. A more detailed summary of these facts may be found in Year Book No. 39 (*see p. 1*) and earlier issues.

Terra Australis

Although references to an Austral land are found in the works of writers in the early centuries after Christ, and evidence appeared in maps, globes and manuscripts from the Middle Ages onward, there is no definite evidence connecting this so-called *Terra Australis* with Australia. Cornelius Wytfliet's map of 1597, however, indicates roughly the eastern and western coasts of Australia, as well as the Gulf of Carpentaria.

Early discoverers of Australia

The Portuguese may have discovered part of the Australian coast before 1542, and it has been suggested that the Arabs may have come to Australia even earlier, though there is no evidence to support this theory. For all practical purposes, however, the coastal exploration of Australia may be taken as having begun with the Spaniards and the Dutch.

In 1606 the Spaniard Quiros, on reaching the island that has retained the name of Espiritu Santo (the largest island of the New Hebrides group), thought he had discovered the great land of the south, and therefore named the group *La Australia del Espiritu Santo*. After leaving the New Hebrides Quiros sailed eastward, but Torres, his second-in-command, took a westerly course and passed through the strait that now bears his name. In all probability he sighted the Australian continent but no mention of it is made in his records. This voyage marks the close of Spanish activity in the work of discovery in the South Seas.

The Dutch discovered Australia when the Dutch East India Company sent the *Duyfken* from Bantam, Java, to explore the island of New Guinea. During March 1606 the *Duyfken* coasted along the southern shores of New Guinea and followed the west coast of Cape York peninsula as far as Cape Keer-Weer (Turn Again).

During the following thirty years there were nine visits of Dutch navigators to Australian waters; by 1636, through their efforts, the coast of Australia from Cape York westward around to the Great Australian Bight had been discovered.

In 1642 Abel Janszoon Tasman set out from Batavia to ascertain the extent of the great southern continent. He named Van Diemen's Land, imagining it to be part of Australia proper, and sailing north-easterly discovered New Zealand and returned to Batavia. In his second voyage, in 1644, Tasman visited the northern coast of Australia, sailing round the Gulf of Carpentaria and along the north-west coast as far south as the tropic of Capricorn. This voyage of Tasman's may be said to have ended the period of Dutch discoveries, although there were subsequent visits by the Dutch to Australia (de Vlamingh in 1696 and Van Delft in 1705).

Discoveries by the English

In the meantime the English had made their first appearance on the Australian coast in 1688, when the north-westerly shores were visited by William Dampier, as supercargo of the *Cygnat*, a trading vessel whose crew had turned buccaneers. In 1699 he again visited Australia, in command of H.M.S. *Roebuck*, and on his return to England published an account in which a description is given of trees, flowers, birds and reptiles observed, and of encounters with natives.

At the end of the seventeenth century it was uncertain whether Tasmania and New Zealand were parts of Australia, or whether they were separated from it but themselves formed part of a great Antarctic Continent. Lieutenant (later Captain) James Cook's first voyage, though undertaken primarily for the purpose of observing the transit of Venus from Tahiti, had also the objective of ascertaining whether the unexplored part of the southern hemisphere was only an immense mass of water or contained another continent. In command of H.M.S. *Endeavour*, and accompanied by Sir Joseph Banks, the botanist, Dr. Solander the naturalist, Green the

astronomer, draftsmen and servants, Cook, after observing the transit of Venus at Tahiti, turned towards New Zealand, sighting that land on 7 October 1769, in the neighbourhood of Poverty Bay. Circumnavigating the North and South Islands, he proved that New Zealand was connected neither with the supposed Antarctic Continent nor with Australia, and took formal possession thereof in the name of the British Crown. On 20 April 1770 Cook sighted the Australian mainland at a place he called Point Hicks, naming it after his first-lieutenant, who first saw it. Coasting northwards, on the 29 April 1770 he discovered Botany Bay, where he landed. Cook sailed along the coast in a northerly direction for nearly 1,300 miles until 11 June 1770, when the *Endeavour* was seriously damaged by striking a coral reef in the vicinity of Trinity Bay. Repairs occupied nearly two months, and the *Endeavour* then again set her course to the north, sailing through Torres Strait and anchoring in the Downs on 13 July 1771. In 1772 Cook was put in command of the ships *Resolution* and *Adventure*, with a view to ascertaining whether a great southern continent existed. Having satisfied himself that, even if it did, it lay so far to the south as to be useless for trade and settlement, he returned to England in 1774. Cook's last voyage was undertaken in 1776, and he met his death on 14 February 1779, by which date practically the whole coast of Australia had been explored. The only remaining discovery of importance, the existence of a channel between Tasmania and Australia, was made by Bass and Flinders in 1798.

The annexation of Australia

Annexation of the eastern part of Australia, 1770

Although representatives of the nations mentioned in the previous section landed or claimed to have landed on the shores of Australia on various occasions during the sixteenth and seventeenth centuries, it was not until 23 August 1770 that the history of Australia was brought into definite political connection with western civilization. It was on that date that Captain Cook took possession 'of the whole eastern coast, from latitude 38° S. to this place, latitude 101° S., in right of His Majesty King George the Third'. Cook, however, proclaimed British sovereignty over only what are now the eastern parts of New South Wales and Queensland, and formal possession, on behalf of the British Crown, of the whole of the eastern part of the Australian continent and Tasmania was not taken until 26 January 1788, when Captain Phillip's Commission, first issued to him on 12 October 1786, and amplified on 2 April 1787, was read to the people whom he had brought with him in the 'First Fleet'.

The commission appointed Phillip 'Captain-General and Governor-in-Chief in and over our territory called New South Wales, extending from the Northern Cape or extremity of the coast called Cape York, in the latitude of ten degrees thirty-seven minutes south, to the southern extremity of the said territory of New South Wales or South Cape, in the latitude of forty-three degrees thirty-nine minutes south and of all the country inland westward as far as the one hundred and thirty-fifth degree of east longitude reckoning from the meridian of Greenwich, including all the islands adjacent in the Pacific Ocean within the latitudes aforesaid of ten degrees thirty-seven minutes south and forty-three degrees thirty-nine minutes south'.

Although Captain Cook had taken possession of the North Island of New Zealand in November 1769, and of the South Island in January 1770, it is doubtful whether, at the time when Captain Phillip's commission was drawn up, New Zealand was considered as one of the 'islands adjacent in the Pacific Ocean'. The fact that under the Supreme Court Act (Imperial) of 1823, British residents in New Zealand were brought under the jurisdiction of the Court at Sydney, and that in 1839 there was a proposal on the part of the British Government to appoint a consul in New Zealand, leaves this an open question, as nothing more than extra-territorial jurisdiction may have been intended. New Zealand does not appear to have become British territory unequivocally until 1840, when Captain Hobson arrived at the Bay of Islands, and on 30 January read his commission, which extended the boundaries of the Colony of New South Wales so as to embrace and comprehend the islands of New Zealand. On 5 February the Treaty of Waitangi, made with the native chiefs, was signed. Finally, on 21 May British sovereignty over the islands of New Zealand was explicitly proclaimed.

Extension of New South Wales westward, 1825

On 17 February 1824 Earl Bathurst notified Sir Thomas Brisbane that he had recommended to His Majesty the dispatch of a ship of war to the north-west coast of New Holland for the purpose of taking possession of the coast between the western coast of Bathurst Island and the eastern side of Coburg Peninsula. Captain James J. Gordon Bremer of H.M.S. *Tamar*, who was selected for the purpose, took possession on 20 September 1824 of the coast from the 135th to the 129th degree of east longitude. On 16 July 1825 the whole territory between those boundaries was described in Darling's commission as being within the boundaries of New South Wales, thus increasing its area by 518,134 square miles, and making it, including New Zealand and excluding Tasmania, 2,076,308 square miles, or also excluding New Zealand, 1,972,446 square miles.

Annexation of Western Australia, 1827

An expedition under Major Lockyer, sent by Lieutenant-General Sir Ralph Darling, then Governor of New South Wales, to found a settlement at King George Sound, sailed from Sydney on 9 November 1826, landed at the Sound on 26 December following, and on 21 January 1827 hoisted the British flag. Captain Stirling, in command of H.M.S. *Success*, arrived at Sydney a few weeks after the departure of the expedition to King George Sound. He obtained the Governor's permission to visit Swan River with a view to seizing a position on the western coast and reporting upon its suitability as a place of settlement. Captain Stirling left Sydney on 17 January 1827, and on his return in the following April submitted a glowing report on what he described as a 'rich and romantic country', urging its occupation for the purpose of settlement. He left for England in July 1827, continuing his advocacy— notwithstanding much discouragement— with unabated enthusiasm. He was at last successful, the result being due mainly to the formation of an association of prospective settlers having capital at their disposal. He was appointed Lieutenant-Governor and with a party of settlers arrived at Garden Island, near the Swan River, in the ship *Parmelia* in June 1829. On the 2nd of the preceding month, Captain Fremantle, in command of H.M.S. *Challenge*, arrived and hoisted the British flag on the south head of Swan River, again asserting possession of 'all that part of New Holland which is not included within the territory of New South Wales'. Thus, before the middle of 1829, the whole territory now known as the Commonwealth of Australia had been constituted a dependency of the United Kingdom.

The creation of the several Colonies

New South Wales

In Governor Phillip's commission of 1786 the mainland of Australia was divided by the 135th meridian of east longitude into two parts. The earliest colonists believed that the present State of Tasmania was actually joined to the mainland, and it was not until 1798 that the contrary was known. In that year Bass and Flinders proved that it was an island by sailing through Bass Strait. The territory of New South Wales, as originally constituted, and of New Zealand, which may be included although Cook's annexation was not properly given effect to until 1840, consisted of 1,584,389 square miles. A further area of 518,134 square miles was added in 1825, when the western boundary was extended to the 129th east meridian. The territory was subsequently reduced by the separation of various areas to form the other colonies, and at the time of the establishment of the Commonwealth the area of New South Wales was 310,372 square miles. Following the transfer of the Australian Capital Territory to the Commonwealth in 1911, the area was further reduced to 309,433 square miles.

Lord Howe Island, which is a dependency of New South Wales, and for political purposes is included in one of the electorates of Sydney, is situated in latitude 31° 30' south, longitude 159° 5' east, about 436 miles north-east of Sydney, and has an area of 3,220 acres.

Tasmania

Van Diemen's Land, first settled in 1803, was politically separated from New South Wales in 1825, being constituted a separate colony on 14 June. The area of the colony was 26,215 square miles. The name of the colony was officially changed to Tasmania in 1856, when responsible government was established. Following a resurvey of local government areas, the area of Tasmania was determined at 26,383 square miles at the end of 1964.

Macquarie Island, about 1,000 miles south-east of Hobart, together with a few rocky islets nearby, has been a dependency of Tasmania since the nineteenth century. In December 1911 five members of the Australasian Antarctic Expedition landed on the island and remained there until 1915. On 3 March 1948 another party was landed to man a new station which has since been maintained as a scientific base. The island is about 21 miles long and two miles wide.

Western Australia

The territory westward of the 129th meridian, comprising 975,920 square miles, was constituted a colony under the name of Western Australia in June 1829. It was always distinct and independent of New South Wales, except for the settlement on King George Sound (*see above*), which remained under the jurisdiction of New South Wales until 1831.

South Australia

On 15 August 1834 the Act 4 and 5 William IV., cap. 95, was passed, creating South Australia a 'province', and settlement took place towards the end of the year 1836. The first Governor, Captain Hindmarsh, R.N., arrived at Holdfast Bay on 28 December 1836 and on the same day the new colony was officially proclaimed. The new colony embraced 309,850 square miles of territory, lying south of the 26th parallel of south latitude and between the 141st and 132nd meridians of east longitude. On 10 December 1861, by authority of the Imperial Act 24 and 25 Vict., cap. 44, the western boundary of South Australia was extended to coincide with the eastern

boundary of Western Australia, namely, the 129th east meridian. The area of the extension was approximately 70,220 square miles. Nearly two years later, on 6 July 1863, the Northern Territory, comprising 523,620 square miles, was brought under the jurisdiction of South Australia, which thereupon controlled an area of 903,690 square miles. The Territory was transferred to the Commonwealth on 1 January 1911 (*see below*).

New Zealand

New Zealand, nominally annexed by Captain Cook and formally declared by proclamation in 1840 as a dependency of New South Wales by letters patent of 16 November of that year, was constituted a separate colony under the powers of the Act 3 and 4 Vict., cap. 62, of 7 August 1840. Proclamation of the separation was made on 3 May 1841. The area of the colony was 103,862 square miles.

Victoria

In 1851 the 'Port Phillip District' of New South Wales was constituted the colony of Victoria, 'bounded on the north and north-west by a straight line drawn from Cape Howe to the nearest source of the River Murray and thence by the course of that river to the eastern boundary of the colony of South Australia'. The area of the new colony was 87,884 square miles, and its separate existence took effect from 1 July 1851.

Queensland

The northern squatting districts of Moreton, Darling Downs, Burnett, Wide Bay, Maranoa, Leichhardt and Port Curtis, together with the reputed county of Stanley, were granted an independent administration and formed into a distinct colony under the name of Queensland by letters patent dated 6 June 1859, although separation from New South Wales was not completed until 10 December of the same year. The territory comprised by the new colony was 'so much of the colony of New South Wales as lies northwards of a line commencing on the sea-coast at Point Danger in latitude about 28° 8' south, running westward along the Macpherson and Dividing Ranges and the Dumaresq River to the MacIntyre River, thence downward to the 29th parallel of south latitude, and following that parallel westerly to the 141st meridian of east longitude, which is the eastern boundary of South Australia, together with all the adjacent islands, their members, and appurtenances in the Pacific Ocean'. The area of the colony thus constituted was 554,300 square miles. By letters patent dated 13 March 1861, forwarded by the Colonial Secretary to the Governor of Queensland on 12 April 1862, the area of Queensland was increased by the annexation of 'so much of the colony of New South Wales as lies to the northward of the 26th parallel of south latitude, and between the 141st and 138th meridians of east longitude, together with all and every the adjacent islands, their members, and appurtenances, in the Gulf of Carpentaria'. With this addition, the area of Queensland became 670,500 square miles. Following a thorough revision of the area of each local government area of Queensland, based on the most recent maps available, the Surveyor-General, in 1958, determined the area of Queensland as 667,000 square miles—a reduction of 3,500 square miles from the area previously determined.

The establishment of the Commonwealth of Australia

Federation

On 1 January 1901 the colonies mentioned, with the exception of New Zealand, were federated under the name of the 'Commonwealth of Australia', the designation of 'Colonies'—except in the case of the Northern Territory, to which the designation 'Territory' applied—being at the same time changed to that of 'States'.

Transfer of the Northern Territory to the Commonwealth

On 7 December 1907 the Commonwealth and the State of South Australia entered into an agreement for the transfer of the Northern Territory to the Commonwealth, subject to approval by the Parliaments of the Commonwealth and the State. This approval was given by the South Australian Parliament under The Northern Territory Surrender Act, 1907 (assented to on 14 May 1908) and by the Commonwealth Parliament under the *Northern Territory Acceptance Act* 1910 (assented to on 16 November 1910). The Territory was formally transferred to the Commonwealth on 1 January 1911, and became the Northern Territory of Australia.

By Imperial Order in Council dated 23 July 1931 Ashmore Islands, known as Middle, East and West Islands, and Cartier Island, situated in the Indian Ocean off the north-west coast of Australia, were placed under the authority of the Commonwealth. The islands were accepted by the Commonwealth on 10 May 1934, in the *Ashmore and Cartier Islands Acceptance Act* 1933, under the name of the Territory of Ashmore and Cartier Islands. The Act authorized the Governor

of Western Australia to make ordinances having the force of law in and in relation to the Territory. An amendment to the Act in July 1938 annexed the islands to the Northern Territory, whose laws, ordinances and regulations, wherever applicable, thereupon applied.

The area of Ashmore Reef is approximately 60 square miles (to the limit of the reef), and it is situated 220 statute miles off the western coast of Australia and 520 statute miles west of Darwin. Cartier Islands are approximately 17 square miles in area (to the limit of the reef), and are situated 184 statute miles off the western coast of Australia and 490 statute miles west of Darwin.

Transfer of the Australian Capital Territory to the Commonwealth

On 18 October 1909 the Commonwealth and the State of New South Wales entered into an agreement for the surrender to and acceptance by the Commonwealth of an area of 911 square miles as the Seat of Government of the Commonwealth. In December 1909, Acts were passed by the Commonwealth and New South Wales Parliaments approving the agreement, and on 5 December 1910 a proclamation was issued vesting the Territory in the Commonwealth on and from 1 January 1911. By the *Jervis Bay Territory Acceptance Act* 1915 an area of 28 square miles at Jervis Bay, surrendered by New South Wales according to an agreement made in 1913, was accepted by the Commonwealth, and was transferred as from 4 September 1915.

Present composition of the Commonwealth

Following the revision of the area of Queensland and Tasmania as mentioned on pages 3 and 4, and of the area of the Northern Territory during 1964, the total area of the Commonwealth of Australia has been determined as 2,967,909 square miles. The dates of creation and the areas of its component States and Territories are shown below.

THE COMMONWEALTH OF AUSTRALIA: YEAR OF FORMATION AND AREA OF COMPONENT STATES AND TERRITORIES

State or Territory	Year of formation into separate Colony or Territory	Present area in square miles	State or Territory	Year of formation into separate Colony or Territory	Present area in square miles
New South Wales	1786	309,433	Northern Territory	1863	520,280
Victoria . . .	1851	87,884	Australian Capital Territory . .	1911	939
Queensland . .	1859	667,000			
South Australia .	1834	380,070			
Western Australia .	1829	975,920	Commonwealth of Australia . .	..	2,967,909
Tasmania . . .	1825	26,383			

The Constitution of the Commonwealth

Information regarding the development of the Constitutions of the various Colonies (now States), together with a brief history of the federal movement in Australia, was embodied in this chapter in issues of the Year Book up to and including No. 22.

Commonwealth Constitution Act

The Commonwealth of Australia Constitution Act, 63 and 64 Vict., Chapter 12, namely: 'An Act to constitute the Commonwealth of Australia', as amended by the *Constitution Alteration (Senate Elections)* 1906, the *Constitution Alteration (State Debts)* 1909, the *Constitution Alteration (State Debts)* 1928, and the *Constitution Alteration (Social Services)* 1946, is given in *extenso* hereunder, and the text contains all the alterations of the Constitution which have been made up to and including 31 December 1965.

THE COMMONWEALTH OF AUSTRALIA CONSTITUTION ACT. 63 & 64 VICT., CHAPTER 12.

An Act to Constitute the Commonwealth of Australia. (9th July, 1900.)

WHEREAS the people of New South Wales, Victoria, South Australia, Queensland, and Tasmania, humbly relying on the blessing of Almighty God, have agreed to unite in one indissoluble Federal Commonwealth under the Crown of the United Kingdom of Great Britain and Ireland, and under the Constitution hereby established:

And whereas it is expedient to provide for the admission into the Commonwealth of other Australasian colonies and possessions of the Queen:

Be it therefore enacted by the Queen's Most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled and by the authority of the same, as follows:—

1. This Act may be cited as the Commonwealth of Australia Constitution Act.
2. The provisions of this Act referring to the Queen shall extend to Her Majesty's heirs and successors in the sovereignty of the United Kingdom.
3. It shall be lawful for the Queen, with the advice of the Privy Council, to declare by proclamation that, on and after a day therein appointed, not being later than one year after the passing of this Act, the people of New South Wales, Victoria, South Australia, Queensland, and Tasmania, and also, if Her Majesty is satisfied that the people of Western Australia have agreed thereto, of Western Australia, shall be united in a Federal Commonwealth under the name of the Commonwealth of Australia. But the Queen may, at any time after the proclamation, appoint a Governor-General for the Commonwealth.
4. The Commonwealth shall be established, and the Constitution of the Commonwealth shall take effect, on and after the day so appointed. But the Parliaments of the several colonies may at any time after the passing of this Act make any such laws, to come into operation on the day so appointed, as they might have made if the Constitution had taken effect at the passing of this Act.
5. This Act, and all laws made by the Parliament of the Commonwealth under the Constitution, shall be binding on the courts, judges, and people of every State and of every part of the Commonwealth, notwithstanding anything in the laws of any State; and the laws of the Commonwealth shall be in force on all British ships, the Queen's ships of war excepted, whose first port of clearance and whose port of destination are in the Commonwealth.
6. "The Commonwealth" shall mean the Commonwealth of Australia as established under this Act.
 "The States" shall mean such of the colonies of New South Wales, New Zealand, Queensland, Tasmania, Victoria, Western Australia, and South Australia, including the northern territory of South Australia, as for the time being are parts of the Commonwealth, and such colonies or territories as may be admitted into or established by the Commonwealth as States; and each of such parts of the Commonwealth shall be called "a State."
- "Original States" shall mean such States as are parts of the Commonwealth at its establishment.
7. The Federal Council of Australasia Act, 1885, is hereby repealed, but so as not to affect any laws passed by the Federal Council of Australasia and in force at the establishment of the Commonwealth.
 Any such law may be repealed as to any State by the Parliament of the Commonwealth, or as to any colony not being a State by the Parliament thereof.
8. After the passing of this Act the Colonial Boundaries Act, 1895, shall not apply to any colony which becomes a State of the Commonwealth; but the Commonwealth shall be taken to be a self-governing colony for the purposes of that Act.
9. The Constitution of the Commonwealth shall be as follows:—

THE CONSTITUTION.

This Constitution is divided as follows:—

- Chapter I.—The Parliament:
 - Part I.—General:
 - Part II.—The Senate:
 - Part III.—The House of Representatives:
 - Part IV.—Both Houses of the Parliament:
 - Part V.—Powers of the Parliament:
- Chapter II.—The Executive Government:
- Chapter III.—The Judicature:
- Chapter IV.—Finance and Trade:
- Chapter V.—The States:
- Chapter VI.—New States:
- Chapter VII.—Miscellaneous:
- Chapter VIII.—Alteration of the Constitution.
- The Schedule.

CHAPTER I.—THE PARLIAMENT.

PART I.—GENERAL.

1. The legislative power of the Commonwealth shall be vested in a Federal Parliament, which shall consist of the Queen, a Senate, and a House of Representatives, and which is hereinafter called "The Parliament", or "The Parliament of the Commonwealth".

2. A Governor-General appointed by the Queen shall be Her Majesty's representative in the Commonwealth, and shall have and may exercise in the Commonwealth during the Queen's pleasure, but subject to this Constitution, such powers and functions of the Queen as Her Majesty may be pleased to assign to him.

3. There shall be payable to the Queen out of the Consolidated Revenue Fund of the Commonwealth, for the salary of the Governor-General, an annual sum which, until the Parliament otherwise provides, shall be ten thousand pounds.

The salary of a Governor-General shall not be altered during his continuance in office.

4. The provisions of this Constitution relating to the Governor-General extend and apply to the Governor-General for the time being, or such person as the Queen may appoint to administer the Government of the Commonwealth; but no such person shall be entitled to receive any salary from the Commonwealth in respect of any other office during his administration of the Government of the Commonwealth.

5. The Governor-General may appoint such times for holding the sessions of the Parliament as he thinks fit, and may also from time to time, by Proclamation or otherwise prorogue the Parliament, and may in like manner dissolve the House of Representatives.

After any general election the Parliament shall be summoned to meet not later than thirty days after the day appointed for the return of the writs.

The Parliament shall be summoned to meet not later than six months after the establishment of the Commonwealth.

6. There shall be a session of the Parliament once at least in every year, so that twelve months shall not intervene between the last sitting of the Parliament in one session and its first sitting in the next session.

PART II.—THE SENATE.

7. The Senate shall be composed of senators for each State, directly chosen by the people of the State, voting, until the Parliament otherwise provides, as one electorate.

But until the Parliament of the Commonwealth otherwise provides, the Parliament of the State of Queensland, if that State be an Original State, may make laws dividing the State into divisions and determining the number of senators to be chosen for each division, and in the absence of such provision the State shall be one electorate.

Until the Parliament otherwise provides there shall be six senators for each Original State.* The Parliament may make laws increasing or diminishing the number of senators for each State, but so that equal representation of the several Original States shall be maintained and that no Original State shall have less than six senators.

The senators shall be chosen for a term of six years, and the names of the senators chosen for each State shall be certified by the Governor to the Governor-General.

8. The qualification of electors of senators shall be in each State that which is prescribed by this Constitution, or by the Parliament, as the qualification for electors of members of the House of Representatives; but in the choosing of senators each selector shall vote only once.

9. The Parliament of the Commonwealth may make laws prescribing the method of choosing senators, but so that the method shall be uniform for all the States. Subject to any such law, the Parliament of each State may make laws prescribing the method of choosing the senators for that State.

The Parliament of a State may make laws for determining the times and places of elections of senators for the State.

* The Parliament has otherwise provided, by means of the *Representation Act* 1948, that the number of senators shall be ten for each State from the first meeting of Parliament after the first dissolution of the House of Representatives occurring after the commencement of the Act (18 May 1948).

10. Until the Parliament otherwise provides, but subject to this Constitution, the laws in force in each State, for the time being, relating to elections for the more numerous House of the Parliament of the State shall, as nearly as practicable, apply to elections of senators for the State.

11. The Senate may proceed to the despatch of business, notwithstanding the failure of any State to provide for its representation in the Senate.

12. The Governor of any State may cause writs to be issued for elections of senators for the State. In case of the dissolution of the Senate the writs shall be issued within ten days from the proclamation of such dissolution.

13. As soon as may be after the Senate first meets, and after each first meeting of the Senate following a dissolution thereof, the Senate shall divide the senators chosen for each State into two classes, as nearly equal in number as practicable; and the places of the senators of the first class shall become vacant at the expiration of [the third year] *three years*,* and the places of those of the second class at the expiration of [the sixth year] *six years*,* from the beginning of their term of service; and afterwards the places of senators shall become vacant at the expiration of six years from the beginning of their term of service.

The election to fill vacant places shall be made [in the year at the expiration of which] *within one year before** the places are to become vacant.

For the purposes of this section the term of service of a senator shall be taken to begin on the first day of [January] *July** following the day of his election, except in the cases of the first election and of the election next after any dissolution of the Senate, when it shall be taken to begin on the first day of [January] *July** preceding the day of his election.

14. Whenever the number of senators for a State is increased or diminished, the Parliament of the Commonwealth may make such provision for the vacating of the places of senators for the State as it deems necessary to maintain regularity in the rotation.

15. If the place of a senator becomes vacant before the expiration of his term of service, the Houses of Parliament of the State for which he was chosen shall, sitting and voting together, choose a person to hold the place until the expiration of the term, or until the election of a successor as hereinafter provided, whichever first happens. But if the Houses of Parliament of the State are not in session at the time when the vacancy is notified, the Governor of the State, with the advice of the Executive Council thereof, may appoint a person to hold the place until the expiration of fourteen days after the beginning of the next session of the Parliament of the State, or until the election of a successor, whichever first happens.

At the next general election of members of the House of Representatives, or at the next election of senators for the State, whichever first happens, a successor shall, if the term has not then expired, be chosen to hold the place from the date of his election until the expiration of the term.

The name of any senator so chosen or appointed shall be certified by the Governor of the State to the Governor-General.

16. The qualifications of a senator shall be the same as those of a member of the House of Representatives.

17. The Senate shall, before proceeding to the despatch of any other business, choose a senator to be the President of the Senate; and as often as the office of President becomes vacant the Senate shall again choose a senator to be the President.

The President shall cease to hold his office if he ceases to be a senator. He may be removed from office by a vote of the Senate, or he may resign his office or his seat by writing addressed to the Governor-General.

18. Before or during any absence of the President, the Senate may choose a senator to perform his duties in his absence.

19. A senator may, by writing addressed to the President, or to the Governor-General if there is no President or if the President is absent from the Commonwealth, resign his place, which thereupon shall become vacant.

20. The place of a senator shall become vacant if for two consecutive months of any session of the Parliament he, without the permission of the Senate, fails to attend the Senate.

21. Whenever a vacancy happens in the Senate, the President, or if there is no President or if the President is absent from the Commonwealth the Governor-General, shall notify the same to the Governor of the State in the representation of which the vacancy has happened.

* As amended by Section 2 of the *Constitution Alteration (Senate Elections) 1906*. The words in square brackets have been repealed; amendments are shown in italics.

22. Until the Parliament otherwise provides, the presence of at least one third of the whole number of the senators shall be necessary to constitute a meeting of the Senate for the exercise of its powers.

23. Questions arising in the Senate shall be determined by a majority of votes, and each senator shall have one vote. The President shall in all cases be entitled to a vote; and when the votes are equal the question shall pass in the negative.

PART III.—THE HOUSE OF REPRESENTATIVES.

24. The House of Representatives shall be composed of members directly chosen by the people of the Commonwealth, and the number of such members shall be, as nearly as practicable, twice the number of the senators.

The number of members chosen in the several States shall be in proportion to the respective numbers of their people, and shall, until the Parliament otherwise provides, be determined, whenever necessary, in the following manner:—

- (i) A quota shall be ascertained by dividing the number of the people of the Commonwealth, as shown by the latest statistics of the Commonwealth, by twice the number of the senators;
- (ii) The number of members to be chosen in each State shall be determined by dividing the number of the people of the State, as shown by the latest statistics of the Commonwealth, by the quota; and if on such division there is a remainder greater than one-half of the quota, one more member shall be chosen in the State.

But notwithstanding anything in this section five members at least shall be chosen in each Original State.

25. For the purposes of the last section, if by the law of any State all persons of any race are disqualified from voting at elections for the more numerous House of the Parliament of the State, then, in reckoning the number of the people of the State or of the Commonwealth, persons of that race resident in that State shall not be counted.

26. Notwithstanding anything in section twenty-four, the number of members to be chosen in each State at the first election shall be as follows:—

New South Wales . . .	twenty-three	South Australia . . .	six
Victoria . . .	twenty	Tasmania . . .	five
Queensland . . .	eight		

Provided that if Western Australia is an Original State, the numbers shall be as follows:—

New South Wales . . .	twenty-six	South Australia . . .	seven
Victoria . . .	twenty-three	Western Australia . . .	five
Queensland . . .	nine	Tasmania . . .	five

27. Subject to this Constitution, the Parliament may make laws for increasing or diminishing the number of the members of the House of Representatives.

28. Every House of Representatives shall continue for three years from the first meeting of the House, and no longer, but may be sooner dissolved by the Governor-General.

29. Until the Parliament of the Commonwealth otherwise provides, the Parliament of any State may make laws for determining the divisions in each State for which members of the House of Representatives may be chosen, and the number of members to be chosen for each division. A Division shall not be formed out of parts of different States.

In the absence of other provision, each State shall be one electorate.

30. Until the Parliament otherwise provides, the qualification of electors of members of the House of Representatives shall be in each State that which is prescribed by the law of the State as the qualification of electors of the more numerous House of Parliament of the State; but in the choosing of members each elector shall vote only once.*

31. Until the Parliament otherwise provides, but subject to this Constitution, the laws in force in each State for the time being relating to elections for the more numerous House of the Parliament of the State shall, as nearly as practicable, apply to elections in the State of members of the House of Representatives.

* The Parliament has otherwise provided, by means of the *Commonwealth Electoral Act 1918-1965*, Sections 39 and 39A (repealing an earlier provision made by the *Commonwealth Franchise Act 1902*). For present qualifications see Chapter 3, General Government.

32. The Governor-General in Council may cause writs to be issued for general elections of members of the House of Representatives.

After the first general election, the writs shall be issued within ten days from the expiry of a House of Representatives or from the proclamation of a dissolution thereof.

33. Whenever a vacancy happens in the House of Representatives, the Speaker shall issue his writ for the election of a new member, or if there is no Speaker or if he is absent from the Commonwealth the Governor-General in Council may issue the writ.

34. Until the Parliament otherwise provides, the qualifications of a member of the House of Representatives shall be as follows:—

- (i) He must be of the full age of twenty-one years, and must be an elector entitled to vote at the election of members of the House of Representatives, or a person qualified to become such elector, and must have been for three years at the least a resident within the limits of the Commonwealth as existing at the time when he is chosen;
- (ii) He must be a subject of the Queen, either natural-born or for at least five years naturalized under a law of the United Kingdom, or of a Colony which has become or becomes a State, or of the Commonwealth, or of a State.*

35. The House of Representatives shall, before proceeding to the despatch of any other business, choose a member to be the Speaker of the House, and as often as the office of Speaker becomes vacant the House shall again choose a member to be the Speaker.

The Speaker shall cease to hold his office if he ceases to be a member. He may be removed from office by a vote of the House, or he may resign his office or his seat by writing addressed to the Governor-General.

36. Before or during any absence of the Speaker, the House of Representatives may choose a member to perform his duties in his absence.

37. A member may by writing addressed to the Speaker, or to the Governor-General if there is no Speaker or if the Speaker is absent from the Commonwealth, resign his place, which thereupon shall become vacant.

38. The place of a member shall become vacant if for two consecutive months of any session of the Parliament he, without the permission of the House, fails to attend the House.

39. Until the Parliament otherwise provides, the presence of at least one-third of the whole number of the members of the House of Representatives shall be necessary to constitute a meeting of the House for the exercise of its powers.

40. Questions arising in the House of Representatives shall be determined by a majority of votes other than that of the Speaker. The Speaker shall not vote unless the numbers are equal, and then he shall have a casting vote.

PART IV.—BOTH HOUSES OF THE PARLIAMENT.

41. No adult person who has or acquires a right to vote at elections for the more numerous House of the Parliament of a State shall, while the right continues, be prevented by any law of the Commonwealth from voting at elections for either House of the Parliament of the Commonwealth.

42. Every senator and every member of the House of Representatives shall before taking his seat make and subscribe before the Governor-General, or some person authorized by him, an oath or affirmation of allegiance in the form set forth in the schedule to this Constitution.

43. A member of either House of the Parliament shall be incapable of being chosen or of sitting as a member of the other House.

44. Any person who—

- (i) Is under any acknowledgment of allegiance, obedience, or adherence to a foreign power, or is a subject or a citizen or entitled to the rights or privileges of a subject or a citizen of a foreign power: or
- (ii) Is attainted of treason, or has been convicted and is under sentence, or subject to be sentenced, for any offence punishable under the law of the Commonwealth or of a State by imprisonment for one year or longer: or

* The Parliament has otherwise provided, by means of the *Commonwealth Electoral Act 1918-1965*, Section 69. For present qualifications see Chapter 3, General Government.

- (iii) Is an undischarged bankrupt or insolvent: or
- (iv) Holds any office of profit under the Crown, or any pension payable during the pleasure of the Crown out of any of the revenues of the Commonwealth: or
- (v) Has any direct or indirect pecuniary interest in any agreement with the Public Service of the Commonwealth otherwise than as a member and in common with the other members of an incorporated company consisting of more than twenty-five persons:

shall be incapable of being chosen or of sitting as a senator or a member of the House of Representatives.

But sub-section (iv) does not apply to the office of any of the Queen's Ministers of State for the Commonwealth, or of any of the Queen's Ministers for a State, or to the receipt of pay, half-pay, or a pension by any person as an officer or member of the Queen's navy or army, or to the receipt of pay as an officer or member of the naval or military forces of the Commonwealth by any person whose services are not wholly employed by the Commonwealth.

45. If a senator or member of the House of Representatives—

- (i) Becomes subject to any of the disabilities mentioned in the last preceding section: or
- (ii) Takes the benefit, whether by assignment, composition, or otherwise, of any law relating to bankrupt or insolvent debtors: or
- (iii) Directly or indirectly takes or agrees to take any fee or honorarium for services rendered to the Commonwealth, or for services rendered in the Parliament to any person or State:

his place shall thereupon become vacant.

46. Until the Parliament otherwise provides, any person declared by this Constitution to be incapable of sitting as a senator or as a member of the House of Representatives shall, for every day on which he so sits, be liable to pay the sum of one hundred pounds to any person who sues for it in any court of competent jurisdiction.

47. Until the Parliament otherwise provides, any question respecting the qualification of a senator or of a member of the House of Representatives, or respecting a vacancy in either House of the Parliament, and any question of a disputed election to either House shall be determined by the House in which the question arises.

48. Until the Parliament otherwise provides, each senator and each member of the House of Representatives shall receive an allowance of four hundred pounds a year, to be reckoned from the day on which he takes his seat.*

49. The powers, privileges, and immunities of the Senate and of the House of Representatives, and of the members and the committees of each House, shall be such as are declared by the Parliament, and until declared shall be those of the Commons House of Parliament of the United Kingdom, and of its members and committees, at the establishment of the Commonwealth.

50. Each House of the Parliament may make rules and orders with respect to—

- (i) The mode in which its powers, privileges, and immunities may be exercised and upheld;
- (ii) The order and conduct of its business and proceedings either separately or jointly with the other House.

PART V.—POWERS OF THE PARLIAMENT.†

51. The Parliament shall, subject to this Constitution, have power to make laws for the peace, order, and good government of the Commonwealth with respect to—

- (i) Trade and commerce with other countries, and among the States:
- (ii) Taxation; but so as not to discriminate between States or parts of States:
- (iii) Bounties on the production or export of goods, but so that such bounties shall be uniform throughout the Commonwealth:

* The Parliamentary allowance has been varied from time to time (see Chapter 3, General Government). In 1964, it was increased to £3,500 (\$7,000), while additional allowances of £2,000 (\$4,000) and £4,250 (\$8,500), respectively, were granted to the Leaders of the Opposition in the Senate and the House of Representatives, and an additional allowance of £1,000 (\$2,000) to the Leader in the House of Representatives (other than the Leader of the Opposition) of a recognized political party which has not less than ten members in the House of Representatives and of which no member is a Minister.

† Particulars of proposed laws which were submitted to referendums are referred to in Chapter 3, General Government, of this Year Book.

- (iv) Borrowing money on the public credit of the Commonwealth:
- (v) Postal, telegraphic, telephonic, and other like services:
- (vi) The naval and military defence of the Commonwealth and of the several States, and the control of the forces to execute and maintain the laws of the Commonwealth:
- (vii) Lighthouses, lightships, beacons and buoys:
- (viii) Astronomical and meteorological observations:
- (ix) Quarantine:
- (x) Fisheries in Australian waters beyond territorial limits:
- (xi) Census and statistics:
- (xii) Currency, coinage, and legal tender:
- (xiii) Banking, other than State banking; also State banking extending beyond the limits of the State concerned, the incorporation of banks, and the issue of paper money:
- (xiv) Insurance, other than State insurance; also State insurance extending beyond the limits of the State concerned:
- (xv) Weights and measures:
- (xvi) Bills of exchange and promissory notes:
- (xvii) Bankruptcy and insolvency:
- (xviii) Copyrights, patents of inventions and designs, and trade marks:
- (xix) Naturalization and aliens:
- (xx) Foreign corporations, and trading or financial corporations formed within the limits of the Commonwealth:
- (xxi) Marriage:
- (xxii) Divorce and matrimonial causes; and in relation thereto, parental rights, and the custody and guardianship of infants:
- (xxiii) Invalid and old-age pensions:
- (xxiiiA) **The provision of maternity allowances, widows' pensions, child endowment, unemployment, pharmaceutical, sickness and hospital benefits, medical and dental services (but not so as to authorize any form of civil conscription), benefits to students and family allowances:*
- (xxiv) The service and execution throughout the Commonwealth of the civil and criminal process and the judgments of the courts of the States:
- (xxv) The recognition throughout the Commonwealth of the laws, the public Acts and records, and the judicial proceedings of the States:
- (xxvi) The people of any race, other than the aboriginal race in any State, for whom it is deemed necessary to make special laws:
- (xxvii) Immigration and emigration:
- (xxviii) The influx of criminals:
- (xxix) External affairs:
- (xxx) The relations of the Commonwealth with the islands of the Pacific:
- (xxxi) The acquisition of property on just terms from any State or person for any purpose in respect of which the Parliament has power to make laws:
- (xxxii) The control of railways with respect to transport for the naval and military purposes of the Commonwealth:
- (xxxiii) The acquisition, with the consent of a State, of any railways of the State on terms arranged between the Commonwealth and the State:
- (xxxiv) Railway construction and extension in any State with the consent of that State:
- (xxxv) Conciliation and arbitration for the prevention and settlement of industrial disputes extending beyond the limits of any one State:
- (xxxvi) Matters in respect of which this Constitution makes provision until the Parliament otherwise provides:
- (xxxvii) Matters referred to the Parliament of the Commonwealth by the Parliament or Parliaments of any State or States, but so that the law shall extend only to States by whose Parliaments the matter is referred, or which afterwards adopt the law:

* Under Section 2 of the *Constitution Alteration (Social Services)* 1946, the Constitution was amended by the insertion of this paragraph.

(xxxviii) The exercise within the Commonwealth, at the request or with the concurrence of the Parliaments of all the States directly concerned, of any power which can at the establishment of this Constitution be exercised only by the Parliament of the United Kingdom or by the Federal Council of Australasia:

(xxxix) Matters incidental to the execution of any power vested by this Constitution in the Parliament or in either House thereof, or in the Government of the Commonwealth, or in the Federal Judicature, or in any department or officer of the Commonwealth.

52. The Parliament shall, subject to this Constitution, have exclusive power to make laws for the peace, order, and good government of the Commonwealth with respect to—

- (i) The seat of Government of the Commonwealth, and all places acquired by the Commonwealth for public purposes:
- (ii) Matters relating to any department of the public service the control of which is by this Constitution transferred to the Executive Government of the Commonwealth:
- (iii) Other matters declared by this Constitution to be within the exclusive power of the Parliament.

53. Proposed laws appropriating revenue or moneys, or imposing taxation, shall not originate in the Senate. But a proposed law shall not be taken to appropriate revenue or moneys, or to impose taxation, by reason only of its containing provisions for the imposition or appropriation of fines or other pecuniary penalties, or for the demand or payment or appropriation of fees for licences, or fees for services under the proposed law.

The Senate may not amend proposed laws imposing taxation, or proposed laws appropriating revenue or moneys for the ordinary annual services of the Government.

The Senate may not amend any proposed law so as to increase any proposed charge or burden on the people.

The Senate may at any stage return to the House of Representatives any proposed law which the Senate may not amend, requesting, by message, the omission or amendment of any items or provisions therein. And the House of Representatives may, if it thinks fit, make any of such omissions or amendments, with or without modifications.

Except as provided in this section, the Senate shall have equal power with the House of Representatives in respect of all proposed laws.

54. The proposed law which appropriates revenue or moneys for the ordinary annual services of the Government shall deal only with such appropriation.

55. Laws imposing taxation shall deal only with the imposition of taxation, and any provision therein dealing with any other matter shall be of no effect.

Laws imposing taxation, except laws imposing duties of customs or of excise, shall deal with one subject of taxation only; but laws imposing duties of customs shall deal with duties of customs only, and laws imposing duties of excise shall deal with duties of excise only.

56. A vote, resolution, or proposed law for the appropriation of revenue or moneys shall not be passed unless the purpose of the appropriation has in the same session been recommended by message of the Governor-General to the House in which the proposal originated.

57. If the House of Representatives passes any proposed law, and the Senate rejects or fails to pass it, or passes it with amendments to which the House of Representatives will not agree, and if after an interval of three months the House of Representatives, in the same or the next session, again passes the proposed law with or without any amendments which have been made, suggested, or agreed to by the Senate, and the Senate rejects or fails to pass it, or passes it with amendments to which the House of Representatives will not agree, the Governor-General may dissolve the Senate and the House of Representatives simultaneously. But such dissolution shall not take place within six months before the date of expiry of the House of Representatives by effluxion of time.

If after such dissolution the House of Representatives again passes the proposed law, with or without any amendments which have been made, suggested, or agreed to by the Senate, and the Senate rejects or fails to pass it, or passes it with amendments to which the House of Representatives will not agree, the Governor-General may convene a joint sitting of the members of the Senate and of the House of Representatives.

The members present at the joint sitting may deliberate and shall vote together upon the proposed law as last proposed by the House of Representatives, and upon amendments, if any, which have been made therein by one House and not agreed to by the other, and any such amendments which are affirmed by an absolute majority of the total number of the members of

the Senate and House of Representatives shall be taken to have been carried, and if the proposed law, with the amendments, if any, so carried is affirmed by an absolute majority of the total number of members of the Senate and the House of Representatives, it shall be taken to have been duly passed by both Houses of the Parliament, and shall be presented to the Governor-General for the Queen's assent.

58. When a proposed law passed by both Houses of the Parliament is presented to the Governor-General for the Queen's assent, he shall declare, according to his discretion, but subject to this Constitution, that he assents in the Queen's name, or that he withholds assent, or that he reserves the law for the Queen's pleasure.

The Governor-General may return to the House in which it originated any proposed law so presented to him, and may transmit therewith any amendments which he may recommend, and the Houses may deal with the recommendation.

59. The Queen may disallow any law within one year from the Governor-General's assent, and such disallowance on being made known by the Governor-General by speech or message to each of the Houses of the Parliament, or by Proclamation, shall annul the law from the day when the disallowance is so made known.

60. A proposed law reserved for the Queen's pleasure shall not have any force unless and until within two years from the day on which it was presented to the Governor-General for the Queen's assent the Governor-General makes known, by speech or message to each of the Houses of the Parliament, or by Proclamation, that it has received the Queen's assent.

CHAPTER II.—THE EXECUTIVE GOVERNMENT.

61. The executive power of the Commonwealth is vested in the Queen and is exercisable by the Governor-General as the Queen's representative, and extends to the execution and maintenance of this Constitution, and of the laws of the Commonwealth.

62. There shall be a Federal Executive Council to advise the Governor-General in the government of the Commonwealth, and the members of the Council shall be chosen and summoned by the Governor-General and sworn as Executive Councillors, and shall hold office during his pleasure.

63. The provisions of this Constitution referring to the Governor-General in Council shall be construed as referring to the Governor-General acting with the advice of the Federal Executive Council.

64. The Governor-General may appoint officers to administer such departments of State of the Commonwealth as the Governor-General in Council may establish.

Such officers shall hold office during the pleasure of the Governor-General. They shall be members of the Federal Executive Council, and shall be the Queen's Ministers of State for the Commonwealth.

After the first general election no Minister of State shall hold office for a longer period than three months unless he is or becomes a senator or a member of the House of Representatives.

65. Until the Parliament otherwise provides, the Ministers of State shall not exceed seven in number, and shall hold such offices as the Parliament prescribes, or, in the absence of provision, as the Governor-General directs.*

66. There shall be payable to the Queen, out of the Consolidated Revenue Fund of the Commonwealth, for the salaries of the Ministers of State, an annual sum which until the Parliament otherwise provides, shall not exceed twelve thousand pounds a year.*

67. Until the Parliament otherwise provides, the appointment and removal of all other officers of the Executive Government of the Commonwealth shall be vested in the Governor-General in Council, unless the appointment is delegated by the Governor-General in Council or by a law of the Commonwealth to some other authority.

68. The command in chief of the naval and military forces of the Commonwealth is vested in the Governor-General as the Queen's representative.

* The number of Ministers of State has been increased from time to time and has been 25 since 1964. The annual appropriation for Ministers' salaries has been correspondingly increased and has been £95,650 (\$191,300) since 1964.

69. On a date or dates to be proclaimed by the Governor-General after the establishment of the Commonwealth the following departments of the public service in each State shall become transferred to the Commonwealth:—

Posts, telegraphs, and telephones:	Lighthouses, lightships, beacons, and buoys:
Naval and military defence:	Quarantine.

But the departments of customs and of excise in each State shall become transferred to the Commonwealth on its establishment.

70. In respect of matters which, under this Constitution, pass to the Executive Government of the Commonwealth, all powers and functions which at the establishment of the Commonwealth are vested in the Governor of a Colony, or in the Governor of a Colony with the advice of his Executive Council, or in any authority of a Colony, shall vest in the Governor-General, or in the Governor-General in Council, or in the authority exercising similar powers under the Commonwealth, as the case requires.

CHAPTER III.—THE JUDICATURE.

71. The judicial power of the Commonwealth shall be vested in a Federal Supreme Court, to be called the High Court of Australia, and in such other federal courts as the Parliament creates, and in such other courts as it invests with federal jurisdiction. The High Court shall consist of a Chief Justice, and so many other Justices, not less than two, as the Parliament prescribes.*

72. The Justices of the High Court and of the other Courts created by the Parliament—

- (i) Shall be appointed by the Governor-General in Council:
- (ii) Shall not be removed except by the Governor-General in Council, on an address from both Houses of the Parliament in the same session, praying for such removal on the ground of proved misbehaviour or incapacity:
- (iii) Shall receive such remuneration as the Parliament may fix; but the remuneration shall not be diminished during their continuance in office.†

73. The High Court shall have jurisdiction, with such exceptions and subject to such regulations as the Parliament prescribes, to hear and determine appeals from all judgments, decrees, orders, and sentences—

- (i) Of any Justice or Justices exercising the original jurisdiction of the High Court:
- (ii) Of any other federal court, or court exercising federal jurisdiction; or of the Supreme Court of any State, or of any other court of any State from which at the establishment of the Commonwealth an appeal lies to the Queen in Council:
- (iii) Of the Inter-State Commission, but as to questions of law only:

and the judgment of the High Court in all such cases shall be final and conclusive.

But no exception or regulation prescribed by the Parliament shall prevent the High Court from hearing and determining any appeal from the Supreme Court of a State in any matter in which at the establishment of the Commonwealth an appeal lies from such Supreme Court to the Queen in Council.

Until the Parliament otherwise provides, the conditions of and restrictions on appeals to the Queen in Council from the Supreme Courts of the several States shall be applicable to appeals from them to the High Court.

74. No appeal shall be permitted to the Queen in Council from a decision of the High Court upon any question, howsoever arising, as to the limits *inter se* of the Constitutional powers of the Commonwealth and those of any State or States, or as to the limits *inter se* of the Constitutional powers of any two or more States, unless the High Court shall certify that the question is one which ought to be determined by Her Majesty in Council.

The High Court may so certify if satisfied that for any special reason the certificate should be granted, and thereupon an appeal shall lie to Her Majesty in Council on the question without further leave.

* The *Judiciary Act* 1903 provided for a Chief Justice and two other Justices, increased by subsequent amendments to six.

† The *Judiciary Act* 1903 provided for the payment of a salary of £3,500 (\$7,000) a year to the Chief Justice and of £3,000 (\$6,000) a year to each other Justice, increased by subsequent amendments to £12,000 (\$24,000) and £10,500 (\$21,000) a year, respectively.

Except as provided in this section, this Constitution shall not impair any right which the Queen may be pleased to exercise by virtue of Her Royal prerogative to grant special leave of appeal from the High Court to Her Majesty in Council. The Parliament may make laws limiting the matters in which such leave may be asked, but proposed laws containing any such limitation shall be reserved by the Governor-General for Her Majesty's pleasure.

75. In all matters—

- (i) Arising under any treaty:
- (ii) Affecting consuls or other representatives of other countries:
- (iii) In which the Commonwealth, or a person suing or being sued on behalf of the Commonwealth, is a party:
- (iv) Between States, or between residents of different States, or between a State and a resident of another State:
- (v) In which a writ of Mandamus or prohibition or an injunction is sought against an officer of the Commonwealth:

the High Court shall have original jurisdiction.

76. The Parliament may make laws conferring original jurisdiction on the High Court in any matter—

- (i) Arising under this Constitution, or involving its interpretation:
- (ii) Arising under any laws made by the Parliament:
- (iii) Of Admiralty and maritime jurisdiction:
- (iv) Relating to the same subject-matter claimed under the laws of different States.

77. With respect to any of the matters mentioned in the last two sections the Parliament may make laws—

- (i) Defining the jurisdiction of any federal court other than the High Court:
- (ii) Defining the extent to which the jurisdiction of any federal court shall be exclusive of that which belongs to or is invested in the courts of the States:
- (iii) Investing any court of a State with federal jurisdiction.

78. The Parliament may make laws conferring rights to proceed against the Commonwealth or a State in respect of matters within the limits of the judicial power.

79. The federal jurisdiction of any court may be exercised by such number of judges as the Parliament prescribes.

80. The trial on indictment of any offence against any law of the Commonwealth shall be by jury, and every such trial shall be held in the State where the offence was committed, and if the offence was not committed within any State the trial shall be held at such place or places as the Parliament prescribes.

CHAPTER IV.—FINANCE AND TRADE.

81. All revenues or moneys raised or received by the Executive Government of the Commonwealth shall form one Consolidated Revenue Fund, to be appropriated for the purposes of the Commonwealth in the manner and subject to the charges and liabilities imposed by this Constitution.

82. The costs, charges, and expenses incident to the collection, management, and receipt of the Consolidated Revenue Fund shall form the first charge thereon; and the revenue of the Commonwealth shall in the first instance be applied to the payment of the expenditure of the Commonwealth.

83. No money shall be drawn from the Treasury of the Commonwealth except under appropriation made by law.

But until the expiration of one month after the first meeting of the Parliament the Governor-General in Council may draw from the Treasury and expend such moneys as may be necessary for the maintenance of any department transferred to the Commonwealth and for the holding of the first elections for the Parliament.

84. When any department of the public service of a State becomes transferred to the Commonwealth, all officers of the department shall become subject to the control of the Executive Government of the Commonwealth.

Any such officer who is not retained in the service of the Commonwealth shall, unless he is appointed to some other office of equal emolument in the public service of the State, be entitled to receive from the State any pension, gratuity, or other compensation, payable under the law of the State on the abolition of his office.

Any such officer who is retained in the service of the Commonwealth shall preserve all his existing and accruing rights, and shall be entitled to retire from office at the time, and on the pension or retiring allowance, which would be permitted by the law of the State if his service with the Commonwealth were a continuation of his service with the State. Such pension or retiring allowance shall be paid to him by the Commonwealth; but the State shall pay to the Commonwealth a part thereof, to be calculated on the proportion which his term of service with the State bears to his whole term of service, and for the purpose of the calculation his salary shall be taken to be that paid to him by the State at the time of the transfer.

Any officer who is, at the establishment of the Commonwealth, in the public service of a State, and who is, by consent of the Governor of the State with the advice of the Executive Council thereof, transferred to the public service of the Commonwealth, shall have the same rights as if he had been an officer of a department transferred to the Commonwealth and were retained in the service of the Commonwealth.

85. When any department of the public service of a State is transferred to the Commonwealth—

- (i) All property of the State of any kind, used exclusively in connexion with the department, shall become vested in the Commonwealth; but, in the case of the departments controlling customs and excise and bounties, for such time only as the Governor-General in Council may declare to be necessary;
- (ii) The Commonwealth may acquire any property of the State, of any kind used, but not exclusively used in connexion with the department; the value thereof shall, if no agreement can be made, be ascertained in, as nearly as may be, the manner in which the value of land, or of an interest in land, taken by the State for public purposes is ascertained under the law of the State in force at the establishment of the Commonwealth;
- (iii) The Commonwealth shall compensate the State for the value of any property passing to the Commonwealth under this section; if no agreement can be made as to the mode of compensation, it shall be determined under laws to be made by the Parliament;
- (iv) The Commonwealth shall, at the date of the transfer, assume the current obligations of the State in respect of the department transferred.

86. On the establishment of the Commonwealth, the collection and control of duties of customs and of excise, and the control of the payment of bounties, shall pass to the Executive Government of the Commonwealth.

87. During a period of ten years after the establishment of the Commonwealth and thereafter until the Parliament otherwise provides, of the net revenue of the Commonwealth from duties of customs and of excise not more than one-fourth shall be applied annually by the Commonwealth towards its expenditure.

The balance shall, in accordance with this Constitution, be paid to the several States, or applied towards the payment of interest on debts of the several States taken over by the Commonwealth.

88. Uniform duties of customs shall be imposed within two years after the establishment of the Commonwealth.

89. Until the imposition of uniform duties of customs—

- (i) The Commonwealth shall credit to each State the revenues collected therein by the Commonwealth.
- (ii) The Commonwealth shall debit to each State—
 - (a) The expenditure therein of the Commonwealth incurred solely for the maintenance or continuance, as at the time of transfer, of any department transferred from the State to the Commonwealth;
 - (b) The proportion of the State, according to the number of its people, in the other expenditure of the Commonwealth.
- (iii) The Commonwealth shall pay to each State month by month the balance (if any) in favour of the State.

90. On the imposition of uniform duties of customs the power of the Parliament to impose duties of customs and of excise, and to grant bounties on the production or export of goods, shall become exclusive.

On the imposition of uniform duties of customs all laws of the several States imposing duties of customs or of excise, or offering bounties on the production or export of goods, shall cease to have effect, but any grant of or agreement for any such bounty lawfully made by or under the authority of the Government of any State shall be taken to be good if made before the thirtieth day of June, one thousand eight hundred and ninety-eight, and not otherwise.

91. Nothing in this Constitution prohibits a State from granting any aid to or bounty on mining for gold, silver, or other metals, nor from granting, with the consent of both Houses of the Parliament of the Commonwealth expressed by resolution, any aid to or bounty on the production or export of goods.

92. On the imposition of uniform duties of customs, trade, commerce, and intercourse among the States, whether by means of internal carriage or ocean navigation, shall be absolutely free.

But notwithstanding anything in this Constitution, goods imported before the imposition of uniform duties of customs into any State, or into any Colony which, whilst the goods remain therein, becomes a State, shall, on thence passing into another State within two years after the imposition of such duties, be liable to any duty chargeable on the importation of such goods into the Commonwealth, less any duty paid in respect of the goods on their importation.

93. During the first five years after the imposition of uniform duties of customs, and thereafter until the Parliament otherwise provides—

- (i) The duties of customs chargeable on goods imported into a State and afterwards passing into another State for consumption, and the duties of excise paid on goods produced or manufactured in a State and afterwards passing into another State for consumption, shall be taken to have been collected not in the former but in the latter State:
- (ii) Subject to the last sub-section, the Commonwealth shall credit revenue, debit expenditure, and pay balances to the several States as prescribed for the period preceding the imposition of uniform duties of customs.

94. After five years from the imposition of uniform duties of customs, the Parliament may provide, on such basis as it deems fair, for the monthly payment to the several States of all surplus revenue of the Commonwealth.

95. Notwithstanding anything in this Constitution, the Parliament of the State of Western Australia, if that State be an Original State, may, during the first five years after the imposition of uniform duties of customs, impose duties of customs on goods passing into that State and not originally imported from beyond the limits of the Commonwealth; and such duties shall be collected by the Commonwealth.

But any duty so imposed on any goods shall not exceed during the first of such years the duty chargeable on the goods under the law of Western Australia in force at the imposition of uniform duties, and shall not exceed during the second, third, fourth, and fifth of such years respectively, four-fifths, three-fifths, two-fifths and one-fifth of such latter duty, and all duties imposed under this section shall cease at the expiration of the fifth year after the imposition of uniform duties.

If at any time during the five years the duty on any goods under this section is higher than the duty imposed by the Commonwealth on the importation of the like goods, then such higher duty shall be collected on the goods when imported into Western Australia from beyond the limits of the Commonwealth.

96. During a period of ten years after the establishment of the Commonwealth and thereafter until the Parliament otherwise provides, the Parliament may grant financial assistance to any State on such terms and conditions as the Parliament thinks fit.

97. Until the Parliament otherwise provides, the laws in force in any Colony which has become or becomes a State with respect to the receipt of revenue and the expenditure of money on account of the Government of the Colony, and the review and audit of such receipt and expenditure, shall apply to the receipt of revenue and the expenditure of money on account of the Commonwealth in the State in the same manner as if the Commonwealth, or the Government or an officer of the Commonwealth, were mentioned whenever the Colony, or the Government or an officer of the Colony, is mentioned.

98. The power of the Parliament to make laws with respect to trade and commerce extends to navigation and shipping, and to railways the property of any State.

99. The Commonwealth shall not, by any law or regulation of trade, commerce, or revenue, give preference to one State or any part thereof over another State or any part thereof.

100. The Commonwealth shall not, by any law or regulation of trade or commerce, abridge the right of a State or of the residents therein to the reasonable use of the waters of rivers for conservation or irrigation.

101. There shall be an Inter-State Commission, with such powers of adjudication and administration as the Parliament deems necessary for the execution and maintenance, within the Commonwealth, of the provisions of this Constitution relating to trade and commerce, and of all laws made thereunder.

102. The Parliament may by any law with respect to trade or commerce forbid, as to railways, any preference or discrimination by any State, or by any authority constituted under a State, if such preference or discrimination is undue and unreasonable, or unjust to any State; due regard being had to the financial responsibilities incurred by any State in connexion with the construction and maintenance of its railways. But no preference or discrimination shall, within the meaning of this section, be taken to be undue and unreasonable, or unjust to any State, unless so adjudged by the Inter-State Commission.

103. The members of the Inter-State Commission—

- (i) Shall be appointed by the Governor-General in Council;
- (ii) Shall hold office for seven years, but may be removed within that time by the Governor-General in Council, on an address from both Houses of the Parliament in the same session praying for such removal on the ground of proved misbehaviour or incapacity;
- (iii) Shall receive such remuneration as the Parliament may fix; but such remuneration shall not be diminished during their continuance in office.

104. Nothing in this Constitution shall render unlawful any rate for the carriage of goods upon a railway, the property of a State, if the rate is deemed by the Inter-State Commission to be necessary for the development of the territory of the State, and if the rate applies equally to goods within the State and to goods passing into the State from other States.

105. The Parliament may take over from the States their public debts [as existing at the establishment of the Commonwealth],* or a proportion thereof according to the respective numbers of their people as shown by the latest statistics of the Commonwealth, and may convert, renew, or consolidate such debts, or any part thereof; and the States shall indemnify the Commonwealth in respect of the debts taken over, and thereafter the interest payable in respect of the debts shall be deducted and retained from the portions of the surplus revenue of the Commonwealth payable to the several States, or if such surplus is insufficient, or if there is no surplus, then the deficiency or the whole amount shall be paid by the several States.

105A.† (1.) *The Commonwealth may make agreements with the States with respect to the public debts of the States, including—*

- (a) *the taking over of such debts by the Commonwealth;*
- (b) *the management of such debts;*
- (c) *the payment of interest and the provision and management of sinking funds in respect of such debts;*
- (d) *the consolidation, renewal, conversion, and redemption of such debts;*
- (e) *the indemnification of the Commonwealth by the States in respect of debts taken over by the Commonwealth; and*
- (f) *the borrowing of money by the States or by the Commonwealth, or by the Commonwealth for the States.*

(2.) *The Parliament may make laws for validating any such agreement made before the commencement of this section.*

(3.) *The Parliament may make laws for the carrying out by the parties thereto of any such agreement.*

(4.) *Any such agreement may be varied or rescinded by the parties thereto.*

(5.) *Every such agreement and any such variation thereof shall be binding upon the Commonwealth and the States parties thereto notwithstanding anything contained in this Constitution or the Constitution of the several States or in any law of the Parliament of the Commonwealth or of any State.*

(6.) *The powers conferred by this section shall not be construed as being limited in any way by the provisions of section one hundred and five of this Constitution.*

* Under Section 2 of the Constitution Alteration (State Debts) 1909, the words in square brackets were omitted.

† Under Section 2 of the Constitution Alteration (State Debts) 1928, the Constitution was amended by the insertion of this section.

CHAPTER V.—THE STATES.

106. The Constitution of each State of the Commonwealth shall, subject to this Constitution, continue as at the establishment of the Commonwealth, or as at the admission or establishment of the State, as the case may be, until altered in accordance with the Constitution of the State.

107. Every power of the Parliament of a Colony which has become or becomes a State, shall, unless it is by this Constitution exclusively vested in the Parliament of the Commonwealth or withdrawn from the Parliament of the State, continue as at the establishment of the Commonwealth, or as at the admission or establishment of the State as the case may be.

108. Every law in force in a Colony which has become or becomes a State, and relating to any matter within the powers of the Parliament of the Commonwealth, shall, subject to this Constitution, continue in force in the State: and, until provision is made in that behalf by the Parliament of the Commonwealth, the Parliament of the State shall have such powers of alteration and of repeal in respect of any such law as the Parliament of the Colony had until the Colony became a State.

109. When a law of a State is inconsistent with a law of the Commonwealth, the latter shall prevail, and the former shall, to the extent of the inconsistency, be invalid.

110. The provisions of this Constitution relating to the Governor of a State extend and apply to the Governor for the time being of the State, or other chief executive officer or administrator of the government of the State.

111. The Parliament of a State may surrender any part of the State to the Commonwealth; and upon such surrender, and the acceptance thereof by the Commonwealth, such part of the State shall become subject to the exclusive jurisdiction of the Commonwealth.

112. After uniform duties of customs have been imposed, a State may levy on imports or exports, or on goods passing into or out of the State, such charges as may be necessary for executing the inspection laws of the State; but the net produce of all charges so levied shall be for the use of the Commonwealth; and any such inspection laws may be annulled by the Parliament of the Commonwealth.

113. All fermented, distilled, or other intoxicating liquids passing into any State or remaining therein for use, consumption, sale, or storage, shall be subject to the laws of the State as if such liquids had been produced in the State.

114. A State shall not, without the consent of the Parliament of the Commonwealth, raise or maintain any naval or military force, or impose any tax on property of any kind belonging to the Commonwealth, nor shall the Commonwealth impose any tax on property of any kind belonging to a State.

115. A State shall not coin money, nor make anything but gold and silver coin a legal tender in payment of debts.

116. The Commonwealth shall not make any law for establishing any religion, or for imposing any religious observance, or for prohibiting the free exercise of any religion, and no religious test shall be required as a qualification for any office or public trust under the Commonwealth.

117. A subject of the Queen, resident in any State, shall not be subject in any other State to any disability or discrimination which would not be equally applicable to him if he were a subject of the Queen resident in such other State.

118. Full faith and credit shall be given, throughout the Commonwealth, to the laws, the public Acts and records, and the judicial proceedings of every State.

119. The Commonwealth shall protect every State against invasion and, on the application of the Executive Government of the State, against domestic violence.

120. Every State shall make provision for the detention in its prisons of persons accused or convicted of offences against the laws of the Commonwealth, and for the punishment of persons convicted of such offences, and the Parliament of the Commonwealth may make laws to give effect to this provision.

CHAPTER VI.—NEW STATES.

121. The Parliament may admit to the Commonwealth or establish new States, and may upon such admission or establishment make or impose such terms and conditions, including the extent of representation in either House of the Parliament, as it thinks fit.

122. The Parliament may make laws for the government of any territory surrendered by any State to and accepted by the Commonwealth, or of any territory placed by the Queen under the authority of and accepted by the Commonwealth, or otherwise acquired by the Commonwealth, and may allow the representation of such territory in either House of the Parliament to the extent and on the terms which it thinks fit.

123. The Parliament of the Commonwealth may, with the consent of the Parliament of a State, and the approval of the majority of the electors of the State voting upon the question, increase, diminish, or otherwise alter the limits of the State, upon such terms and conditions as may be agreed on, and may, with the like consent, make provision respecting the effect and operation of any increase or diminution or alteration of territory in relation to any State affected.

124. A new State may be formed by separation of territory from a State, but only with the consent of the Parliament thereof, and a new State may be formed by the union of two or more States or parts of States, but only with the consent of the Parliaments of the States affected.

CHAPTER VII.—MISCELLANEOUS.

125. The seat of Government of the Commonwealth shall be determined by the Parliament and shall be within territory which shall have been granted to or acquired by the Commonwealth, and shall be vested in and belong to the Commonwealth, and shall be in the State of New South Wales, and be distant not less than one hundred miles from Sydney.

Such territory shall contain an area of not less than one hundred square miles, and such portion thereof as shall consist of Crown lands shall be granted to the Commonwealth without any payment therefor.

The Parliament shall sit at Melbourne until it meet at the Seat of Government.

126. The Queen may authorize the Governor-General to appoint any person, or any persons jointly or severally, to be his deputy or deputies within any part of the Commonwealth, and in that capacity to exercise during the pleasure of the Governor-General such powers and functions of the Governor-General as he thinks fit to assign to such deputy or deputies, subject to any limitations expressed or directions given by the Queen; but the appointment of such deputy or deputies shall not affect the exercise by the Governor-General himself of any power or function.

127. In reckoning the numbers of the people of the Commonwealth, or of a State or other part of the Commonwealth, aboriginal natives shall not be counted.

CHAPTER VIII.—ALTERATION OF THE CONSTITUTION.

128. This Constitution shall not be altered except in the following manner:—

The proposed law for the alteration thereof must be passed by an absolute majority of each House of the Parliament, and not less than two nor more than six months after its passage through both Houses the proposed law shall be submitted in each State to the electors qualified to vote for the election of members of the House of Representatives.

But if either House passes any such proposed law by an absolute majority, and the other House rejects or fails to pass it or passes it with any amendment to which the first-mentioned House will not agree, and if after an interval of three months the first-mentioned House in the same or the next session again passes the proposed law by an absolute majority with or without any amendment which has been made or agreed to by the other House, and such other House rejects or fails to pass it or passes it with any amendment to which the first-mentioned House will not agree, the Governor-General may submit the proposed law as last proposed by the first-mentioned House, and either with or without any amendments subsequently agreed to by both Houses, to the electors in each State qualified to vote for the election of the House of Representatives.

When a proposed law is submitted to the electors the vote shall be taken in such manner as the Parliament prescribes. But until the qualification of electors of members of the House of Representatives becomes uniform throughout the Commonwealth, only one-half the electors voting for and against the proposed law shall be counted in any State in which adult suffrage prevails.

And if in a majority of the States a majority of the electors voting approve the proposed law, and if a majority of all the electors voting also approve the proposed law, it shall be presented to the Governor-General for the Queen's assent.

No alteration diminishing the proportionate representation of any State in either House of the Parliament, or the minimum number of representatives of a State in the House of Representatives, or increasing, diminishing, or otherwise altering the limits of the State, or in any manner affecting the provisions of the Constitution in relation thereto, shall become law unless the majority of the electors voting in that State approve the proposed law.

SCHEDULE.

OATH.

I, *A.B.*, do swear that I will be faithful and bear true allegiance to Her Majesty Queen Victoria, Her heirs and successors according to law. SO HELP ME GOD !

AFFIRMATION.

I, *A.B.*, do solemnly and sincerely affirm and declare that I will be faithful and bear true allegiance to Her Majesty Queen Victoria, Her heirs and successors according to law.

(NOTE.—*The name of the King or Queen of the United Kingdom of Great Britain and Ireland for the time being is to be substituted from time to time.*)

The Royal Proclamation

The preceding Act received the Royal assent on 9 July 1900. This made it lawful to declare that the people of Australia should be united in a Federal Commonwealth. This proclamation, made on 17 September 1900, constituted the Commonwealth as from 1 January 1901; it read as follows.

BY THE QUEEN.

A PROCLAMATION.

(Signed) VICTORIA R.

WHEREAS by an Act of Parliament passed in the Sixty-third and Sixty-fourth Years of Our Reign, intituled "An Act to constitute the Commonwealth of *Australia*," it is enacted that it shall be lawful for the Queen, with the advice of the Privy Council, to declare by Proclamation, that, on and after a day therein appointed, not being later than One year after the passing of this Act, the people of *New South Wales*, *Victoria*, *South Australia*, *Queensland*, and *Tasmania*, and also, if Her Majesty is satisfied that the people of *Western Australia* have agreed thereto, of *Western Australia*, shall be united in a Federal Commonwealth under the name of the Commonwealth of *Australia*.

And whereas We are satisfied that the people of *Western Australia* have agreed thereto accordingly.

We therefore, by and with the advice of Our Privy Council, have thought fit to issue this Our Royal Proclamation, and We do hereby declare that on and after the First day of *January* One thousand nine hundred and one, the people of *New South Wales*, *Victoria*, *South Australia*, *Queensland*, *Tasmania*, and *Western Australia* shall be united in a Federal Commonwealth under the name of the Commonwealth of *Australia*.

Given at Our Court at *Balmoral* this Seventeenth day of *September*, in the Year of Our Lord One thousand nine hundred, and in the Sixty-fourth Year of Our Reign.

GOD SAVE THE QUEEN.

The External Territories of Australia

Norfolk Island

In 1856 Norfolk Island was created a distinct and separate settlement under the jurisdiction of New South Wales. Later, in 1896, it was made a dependency under the Governor of that colony, and finally by the passage of the *Norfolk Island Act* 1913 it was accepted as a Territory of the Commonwealth of Australia. The island is situated in latitude 29° 3' 3" S., longitude 167° 57' 5" E., and comprises an area of approximately 14 square miles.

Papua

Under the administration of the Commonwealth, but not included in it, is British New Guinea or Papua, finally annexed by the British Government in 1884. This Territory was for a number of years administered by the Queensland Government, but was transferred to the Commonwealth by proclamation on 1 September 1906, under the authority of the *Papua Act* 1905. The area of Papua is about 86,100 square miles.

Trust Territory of New Guinea

In 1919 it was agreed by the Principal Allied and Associated Powers that a mandate should be conferred on Australia for the government of the former German territories and islands situated in latitude between the Equator and 8° S., and in longitude between 141° E. and 159° 25' E. The mandate was issued by the League of Nations on 17 December 1920. The Governor-General of the Commonwealth was authorized to accept the mandate by the *New Guinea Act* 1920, which also declared the area to be a Territory under the authority of the Commonwealth by the name of the Territory of New Guinea. The Territory comprises about 92,160 square miles, and the administration under the mandate dated from 9 May 1921. New Guinea is now administered under a Trusteeship Agreement with the United Nations, approved on 13 December 1946.

Trust Territory of Nauru

In 1919 the Governments of the United Kingdom, Australia and New Zealand entered into an agreement to make provision for the exercise of the mandate conferred on the British Empire for the administration of the island of Nauru, and for the mining of the phosphate deposits thereon. The island is situated in latitude 0° 32' S., and longitude 166° 55' E. and is about 8½ square miles in area. The agreement provided that the administration of the island should be vested in an administrator, the first appointment to be made by the Commonwealth Government, and thereafter in such manner as the three Governments decided. The agreement was approved by the Commonwealth Parliament in the *Nauru Island Agreement Act* 1919, and a supplementary agreement of 30 May 1923, which gave the Government immediately responsible for the administration greater powers of control over the Administrator, was approved in 1932. So far, the administrators have been appointed by the Commonwealth Government. The administration under the mandate operated from 17 December 1920 to 1 November 1947, since when Nauru has been administered under a Trusteeship Agreement with the United Nations.

Australian Antarctic Territory

An Imperial Order in Council of 7 February 1933 placed under Australian authority 'all the islands and territories other than Adelie Land which are situated south of the 60th degree of South Latitude and lying between the 160th degree of East Longitude and the 45th degree of East Longitude'.

The Order came into force with a proclamation issued by the Governor-General on 24 August 1936, after the passing of the *Australian Antarctic Territory Acceptance Act* 1933 by the Commonwealth Parliament. The boundaries of Adelie Land were definitely fixed by a decree of 1 April 1938, as latitude 60° S., longitude 135° E. and longitude 142° E.

Heard and McDonald Islands

Heard and McDonald Islands, about 2,500 miles south-west of Fremantle, were transferred from United Kingdom to Australian control as from 26 December 1947. Heard Island is approximately 27 miles long and 13 miles wide, and McDonald Islands, about 26 miles to the west of Heard Island, are small, rocky and precipitous.

Cocos (Keeling) Islands

The *Cocos (Keeling) Islands Act* 1955 provided for the acceptance of the Cocos Islands, in the Indian Ocean, as a Territory under the authority of the Commonwealth of Australia and was parallel to an Act of the United Kingdom Parliament transferring authority over the islands to the Commonwealth. Consequent on the passing of these Acts, Her Majesty, by Order in Council, specified 23 November 1955 as the date of transfer. From that date the islands came under Australian administration and an Official Representative of Australia was appointed to take charge of the local administration of the islands. Their approximate area is about 5½ square miles.

Christmas Island

The *Christmas Island Act* 1958 provided for the acceptance of Christmas Island, in the Indian Ocean, as a Territory under the authority of the Commonwealth of Australia. Complementary legislation having been passed by the Parliament of the United Kingdom, the island was transferred to the Australian administration on 1 October 1958, and an Official Representative was appointed to administer the Territory. The area of the island is about 52 square miles.

CHAPTER 2

PHYSICAL GEOGRAPHY AND METEOROLOGY

General description of Australia

Geographical position

The Australian Commonwealth, which includes the island continent of Australia and the island of Tasmania, is situated in the Southern Hemisphere, and comprises an area of 2,967,909 square miles, the mainland alone containing 2,941,526 square miles. Bounded on the west and east by the Indian and Pacific Oceans respectively, it lies between longitudes 113° 9' E. and 153° 39' E., while its northern and southern limits are the parallels of latitude 10° 41' S. and 43° 39' S., or, excluding Tasmania, 39° 8' S. On its north are the Timor and Arafura Seas and Torres Strait, on its south the Southern Ocean*. The extreme points are Steep Point on the west, Cape Byron on the east, Cape York on the north, and South-East Cape or, if Tasmania be excluded, Wilson's Promontory, on the south. The difference in latitude between Cape York and Wilson's Promontory is 1,959 miles, and in longitude between Steep Point and Cape Byron 2,489 miles.

Tropical and temperate regions

Of the total area of Australia, nearly 39 per cent lies within the tropics. Taking the latitude of the Tropic of Capricorn as 23° 30' S., the areas within the tropical and temperate zones are approximately as follows.

AREAS OF TROPICAL AND TEMPERATE REGIONS: STATES AND TERRITORIES (Square miles)

Area	N.S.W. (a)	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Total
Within tropical zone .			360,642		364,000		422,980	1,147,622
„ temperate zone	310,372	87,884	306,358	380,070	611,920	26,383	97,300	1,820,287
Total area . .	310,372	87,884	667,000	380,070	975,920	26,383	520,280	2,967,909

(a) Includes Australian Capital Territory (939 square miles).

Fifty-four per cent of Queensland lies within the tropical zone and 46 per cent in the temperate zone; 37 per cent of Western Australia is tropical and 63 per cent temperate; while 81 per cent of the Northern Territory is tropical and 19 per cent temperate. All the remaining States lie within the temperate zone. The tropical part of Australia thus comprises about 39 per cent of the whole of the continent.

Area of Australia compared with areas of other countries

The area of Australia is almost as great as that of the United States of America excluding Alaska, four-fifths of that of Canada, more than half as large again as Europe excluding the U.S.S.R., and about twenty-five times that of Great Britain and Ireland. The areas of Australia and of certain other countries are shown in the table on the following page. The areas shown are in the main obtained from the *Demographic Yearbook*, 1964, published by the Statistical Office of the United Nations, and the countries have been arranged in accordance with the continental groups used therein.

* The Southern Ocean is a local designation for that part of the Indian Ocean lying between the southern shores of Australia and Antarctica.

AREA OF AUSTRALIA AND OF OTHER COUNTRIES, circa 1963

('000 square miles)

Country	Area	Country	Area
Continental divisions—		Africa—continued	
Europe(a)	1,912	Niger	489
Asia(a)	10,655	Angola	481
U.S.S.R. (Europe and Asia)	8,650	South Africa, Republic of .	471
Africa	11,671	Mali	464
North and Central America		Ethiopia	457
and West Indies	9,365	Mauritania	419
South America	6,870	United Arab Republic . .	386
Oceania	3,285	Tanzania, United Republic	
		of	363
Total, World, excluding		Nigeria	357
Arctic and Antarctic		South-West Africa	318
continents	52,408	Mozambique	302
		Zambia	288
Europe(a)—		Somalia	246
France	211	Central African Republic .	238
Spain (incl. possessions) .	195	Madagascar	230
Sweden	174	Kenya	225
Finland	130	Other	1,968
Norway	125		
Poland	121	Total, Africa	11,671
Italy	116		
Yugoslavia	99	North and Central America—	
Germany, Fed. Republic of	96	Canada	3,852
United Kingdom	94	United States of America(b)	3,615
Romania	92	Greenland	840
Other	459	Mexico	762
		Nicaragua	54
Total, Europe(a)	1,912	Cuba	44
		Honduras	43
Asia(a)—		Other	155
China, Mainland	3,692		
India	1,176	Total, North and Central	
Saudi Arabia	870	America	9,365
Iran	636		
Mongolia	593	South America—	
Indonesia	576	Brazil	3,286
Pakistan	366	Argentina	1,072
Turkey	292	Peru	496
Burma	262	Colombia (excl. Panama) .	440
Afghanistan	254	Bolivia	424
Thailand	198	Venezuela	352
Iraq	173	Chile	286
Other	1,567	Paraguay	157
		Ecuador	105
Total, Asia(a)	10,655	Other	252
U.S.S.R.—		Total, South America . .	6,870
Total, U.S.S.R.	8,650		
		Oceania—	
Africa—		Australia	2,968
Sudan	968	New Zealand	104
Algeria	920	New Guinea(c)	92
Congo, Democratic Republic		Papua	86
of	906	Other	35
Libya	679		
Chad	496	Total, Oceania	3,285

(a) Excludes U.S.S.R., shown below. (b) Includes Hawaii. (c) Australian Trust Territory. Western New Guinea (West Irian) is included in Other Asia.

Areas of States and Territories

AREAS OF STATES AND TERRITORIES, COASTLINE AND STANDARD TIMES

State or Territory	Area	Percentage of total area	Coastline	Area per mile of coastline	Standard times	
					Meridian selected	Ahead of G.M.T.
	sq. miles		miles	sq. miles		hours
New South Wales	309,433	10.43	(a) 700	(a) 443	150° E.	10
Victoria	87,884	2.96	680	129	150° E.	10
Queensland	667,000	22.47	3,236	206	150° E.	10
South Australia	380,070	12.81	1,540	247	142°30'E.	9½
Western Australia	975,920	32.88	4,350	224	120° E.	8
Northern Territory	520,280	17.53	1,040	500	142°30'E.	9½
Australian Capital Territory	939	0.03	..	..	150° E.	10
<i>Mainland</i>	<i>2,941,526</i>	<i>99.11</i>	<i>11,546</i>	<i>255</i>	..	..
Tasmania	26,383	0.89	900	29	150° E.	10
Australia	2,967,909	100.00	12,446	238	..	..

(a) Includes Australian Capital Territory.

Geographical features of Australia

The following description is a broad summary of the main physical characteristics of the Australian continent.

A section through the Australian continent from east to west, at the point of its greatest breadth, shows first a narrow belt of coastal plain. This plain, extending north and south along the whole east coast, is well watered by rivers. It is of variable width, seldom more than sixty or seventy miles, and occasionally only a few miles, the average being roughly about forty to fifty miles. Bordering this plain is the Great Dividing Range, which extends from the north of Queensland to the south of New South Wales, and thence one branch sweeps westwards towards the boundary of Victoria and South Australia, and the other, the main branch, terminates in Tasmania. This range, which rises, often abruptly, from the plain, frequently presents bold escarpments on its eastern face, but the descent on its western slopes is gradual, until, in the country to the north of Spencer's Gulf, the plain is not above sea-level and occasionally even below it. Thence there is another almost imperceptible rise until the mountain ranges of Western Australia are reached, and beyond these lies another coastal plain. The mountains of Australia are relatively low, the highest peak, Mount Koscuisko, in New South Wales, being only about 7,300 feet. Three-quarters of the land-mass of Australia lies between the 600 and 1,500 feet contours in the form of a huge plateau, constituting the most distinctive feature of the Australian continent, to which the peculiarities of Australia's climate can probably be largely ascribed.

The rivers of Australia may be divided into two major classes, those of the coastal plains with moderate rates of fall and those of the central plains with very slight fall. Of the former not many are navigable for any distance from their mouths, and bars make many of them difficult of access or inaccessible from the sea.

The two longest rivers of the northern part of the east coast are the Burdekin and the Fitzroy in Queensland. The Hunter is the largest coastal river of New South Wales, and the Murray River, with its great tributary the Darling, drains part of Queensland, the major part of New South Wales, and a large part of Victoria, finally flowing into the arm of the sea known as Lake Alexandrina, on the eastern side of the South Australian coast. The total length of the Murray

is about 1,600 miles, 400 being in South Australia and 1,200 constituting the boundary between New South Wales and Victoria. The total length of the Murray-Darling from the source of the Darling to the mouth of the Murray is about 2,300 miles. The rivers of the north-west coast of Australia (Western Australia), e.g. the Murchison, Gascoyne, Ashburton, Fortesque, De Grey, Fitzroy, Drysdale and Ord are of considerable size. So also are those in the Northern Territory, e.g. the Victoria and Daly, and those on the Queensland side of the Gulf of Carpentaria, such as the Gregory, Leichhardt, Cloncurry, Gilbert and Mitchell. The rivers of Tasmania have short and rapid courses, as might be expected from the configuration of the country.

The 'lakes' of Australia may be divided into three classes: true permanent lakes; lakes which, being very shallow, become mere morasses in dry seasons or even dry up and finally present a cracked surface of salt and dry mud; and lakes which are really inlets of the ocean, opening out into a lake-like expanse. The second class is the only one which seems to demand special mention. These are a characteristic of the great central plain of Australia. Some of them, such as Lakes Torrens, Gairdner, Eyre and Frome, are of considerable extent.

For further information on the geographical features of Australia earlier issues of the Year Book should be consulted. The list of special articles, etc., at the end of this volume indicates the nature of the information available and its position in the various issues.

Climate and meteorology of Australia

This section has been prepared by the Director of the Commonwealth Bureau of Meteorology, and the various States and Territories have been arranged in the standard order adopted by that Bureau. The section concludes with a brief summary of the weather of 1965.

Introduction

Australia extends from about latitude 10° S. to latitude 44° S., but owing largely to the moderating effects of the surrounding oceans and the absence of very pronounced and extensive mountain masses it is less subject to extremes of climate than are regions of similar size in other parts of the world. The average elevation of the land surface is low—probably close to 900 feet above the sea; while the maximum altitude is just above 7,300 feet. Latitude for latitude the Australian climate is generally more temperate than that of the other large land masses of the earth, although it varies considerably from the tropical to the alpine.

The Australian meteorological seasons are: Summer—December, January, February; Autumn—March, April, May; Winter—June, July, August; Spring—September, October, November.

The following general discussion of the climate of Australia is necessarily brief. However, extensive records of Australian climatic data are held and published in various forms by the Bureau of Meteorology. A programme of regional climatic survey has been in progress for some years, and a large number of studies have been published by the Bureau of Meteorology and by the Department of National Development and State Development Authorities. The Bureau of Meteorology welcomes inquiries for climatic information, which may be made at its Central Office in Melbourne or through the Regional Offices which are situated in each of the State capital cities and in Darwin. Reference may also be made to various bulletins and research papers mentioned in this text for more detailed information on particular topics.

Precipitation

Precipitation of moisture from the atmosphere may take various forms depending chiefly on the thermal conditions existing at the time. Within the Australian region, precipitation occurs chiefly as rain because of the generally mild temperatures, but may also occur as snow or hail. Broadly, the immediate physical cause of rainfall may be said to be the lifting of moist air with resultant cooling, condensation into cloud, and eventual precipitation of the heavy water droplets

as rain. This process may be achieved by three different means each of which may be combined with either or both of the others:

- (a) Orographic lifting caused by winds blowing onto rising terrain;
- (b) convective lifting resulting in the development of individual rain clouds of the cumulus or cumulonimbus type producing showers and thunderstorms;
- (c) lifting of a warm air mass as it rises over cooler air—known as a 'frontal' process.

Average annual rainfall. The distribution of the average annual rainfall over Australia is shown in plate 2 (between pages 32 and 33), while plate 3 shows the distribution in 1965.

While Australia is a continent of comparatively low relief, the orographic processes in rain production are very marked in the chain of the Great Dividing Range bordering the whole east coast of the continent, in the ranges of the south-western corner of Western Australia, and in Tasmania. Thus on the east coast the higher rainfall areas lie between the ranges and the Pacific Ocean in the region of prevailing south-east wind circulation. In Tasmania and the south-west of Western Australia the region of high rainfall lies between the ranges and the ocean to the west, these areas lying in a region of predominantly westerly wind flow.

The north-western part of the continent and to some extent the whole region of the Northern Territory and inland north Queensland comes under the influence of the Australian-Asian monsoon. This results in high rainfalls in a summer wet season with the inflow of moist air from the north-west, and a winter dry season with predominantly south-east winds blowing across the dry regions of the interior and producing little rainfall. Tropical cyclones affect the waters adjacent to the north-east and north-west of Australia between December and April. Their frequency varies greatly from season to season, but on the average about three of these disturbances occur in the Coral Sea each season and about two in the eastern Indian Ocean adjacent to the west coast of the continent. When tropical cyclones move close to the tropical coast of the continent they cause very heavy rainfalls over the coastal regions. On occasions these cyclones move over the land and lose intensity, but may still continue to be accompanied by heavy rainfall along their path.

Southern Australia lies in the region of the mid-latitude westerlies for the winter half of the year and is subject to the rain-producing influences of the great depressions of the Southern Ocean and their associated frontal systems. The combined effects of these systems and the topography lead to high winter rainfalls in south-western and south-eastern Australia and in Tasmania, with the highest falls occurring on the windward side of the mountains. The rainfall generally decreases inland with distance from the coast, although the 10-inch isohyet reaches the shore of the Great Australian Bight and the central western coast of Western Australia in regions which are of very flat relief and which because of their position and the orientation of the coastline are only rarely exposed to moist winds.

AREA DISTRIBUTION OF AVERAGE ANNUAL RAINFALL: STATES AND TERRITORIES

(Per cent)

Average annual rainfall	W.A.	N.T.	S.A.	Qld	N.S.W. (a)	Vic.	Tas.	Total
Under 10 inches .	58.0	24.7	82.8	13.0	19.7	Nil	Nil	39.0
10 and under 15 inches .	22.4	32.4	9.4	14.4	23.5	22.4	Nil	20.6
15 and under 20 " .	6.8	9.7	4.5	19.7	17.5	15.2	0.7	11.2
20 and under 25 " .	3.7	6.6	2.2	18.8	14.2	17.9	11.0	9.0
25 and under 30 " .	3.7	9.3	0.8	11.6	9.1	18.0	11.4	7.2
30 and under 40 " .	3.3	4.7	0.3	11.1	9.9	16.1	20.4	6.1
40 inches and over .	2.1	12.6	Nil	11.4	6.1	10.4	56.5	6.9
Total . . .	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

(a) Includes Australian Capital Territory.

The region with the highest average annual rainfall is the east coast of Queensland between Port Douglas and Cardwell, where Tully has an annual average of 177 inches. A further very high rainfall region is the mountainous west coast of Tasmania, where Lake Margaret has the highest average annual total of 145 inches. The area of lowest average annual rainfall is that

of some 180,000 square miles surrounding Lake Eyre in South Australia, where on the average only 4 to 6 inches are received annually. The lowest average over a long period of record is at Troudaninna—4.13 inches. Rain occurs very irregularly, averaging only about one or two days a month in this region.

Of all the continents (excluding Antarctica), Australia receives the least average depth of rainfall and has the least run-off from its rivers into the oceans. Only in relatively small areas of the continent could the rainfall be described as abundant.

Seasonal distribution of rainfall. The average monthly distribution of rainfall in the various Australian rainfall districts is shown by the histograms of plate 4.

The following are the most marked features.

- (a) The clearly defined wet summer and dry winter of the monsoon region of northern Australia.
- (b) The more regular distribution of rainfall throughout the year in south-eastern Australia. In the region to the south and west of the Great Dividing Range, a less pronounced maximum of rainfall is noticeable in the winter or early spring. On the Gippsland (eastern Victoria) coast the rainfall is fairly evenly distributed throughout the year but further along the east coast of the continent the rainfall minimum in late winter and early spring begins to appear and becomes more marked as the tropical regions are approached.
- (c) The marked maximum of rainfall in the south-western districts of Western Australia in winter—the period of the most active southern depressions and frontal systems in this region.

For further information on monthly rainfalls reference may be made to the various Australian rainfall bulletins, to the Climatological Surveys of particular districts and to the annual rain maps and books of normals (standard 30 year periods), all published by the Bureau of Meteorology.

Variability of rainfall. For most agricultural pursuits a more important criterion of the value of rainfall is its variability or reliability. The adequate description of rainfall variability over an extensive geographical area is a matter of some difficulty. Probably the best available measures are to be found in the tables which have been calculated for a number of individual stations in some of the Climatological Survey districts. These tables show the percentage chances of receiving specified amounts of rainfall in monthly seasonal or annual time spans. Statistical indexes of rainfall variation based on a number of different techniques have been used to produce maps which show the main features of the variability of annual rainfall over Australia. A discussion of these methods and the maps is given by F. Loewe in *Some Considerations Regarding the Variability of Annual Rainfall in Australia*, Bureau of Meteorology Bulletin No. 39 (1948).

In general it may be stated that the regions of most reliable rainfall are the south-west of Western Australia, western Tasmania, and western and southern Victoria south of the divide. These areas have one of the most reliable rainfalls in the world. Elsewhere in Australia the degree of variability, in general, increases inland but the region of the highest variability for low average annual rainfalls extends across the central part of the continent from south-western Queensland to the central coast of Western Australia. Some outstanding examples of the numerous instances of high rainfall variability throughout Australia are given below.

At Onslow (Western Australia) annual totals vary from 0.05 inches to 28 inches, and in the four consecutive years 1921 to 1924 the annual totals were 22.25, 2.71, 26.82, and 2.18 inches respectively. At Whim Creek, where 29.41 inches have been recorded in a single day, only 17 points (0.17 inches) were received in the whole of 1924. Great variability can also occur in the heavy rainfall areas, e.g. at Tully the annual rainfalls have varied from 310.92 inches in 1950 to 104.98 inches in 1943.

The following table of annual rainfall for the Australian Capital cities for the past thirty years indicates the variation in rainfall at these sites.

RAINFALL: AUSTRALIAN CAPITAL CITIES, 1935 TO 1964

Year	Perth		Adelaide		Brisbane		Sydney		Canberra(a)		Melbourne		Hobart(b)	
	Amount	No. of days	Amount	No. of days	Amount	No. of days	Amount	No. of days	Amount	No. of days	Amount	No. of days	Amount	No. of days
	in.		in.		in.		in.		in.		in.		in.	
1935	32.28	129	23.45	140	34.64	111	30.97	131	23.78	95	29.98	183	32.22	196
1936	30.64	118	19.34	121	21.77	101	30.22	130	26.24	108	24.30	187	19.60	178
1937	35.28	120	23.01	128	34.79	113	52.00	157	20.46	82	21.45	144	20.65	160
1938	29.64	111	19.26	119	43.49	110	39.17	132	19.26	79	17.63	131	31.32	169
1939	45.70	123	23.29	139	41.43	122	33.67	127	27.63	116	33.11	166	27.23	188
1940	20.00	98	16.16	116	42.37	93	39.34	125	17.38	64	19.83	126	17.17	135
1941	34.74	122	22.56	126	31.50	105	26.74	129	19.55	91	31.78	157	23.49	145
1942	39.24	140	25.44	133	44.01	125	48.29	121	25.76	104	29.79	148	19.42	163
1943	31.46	117	17.84	135	50.68	126	50.74	136	24.59	123	18.80	150	20.84	149
1944	27.39	123	17.13	114	27.85	100	31.04	115	12.05	75	21.32	143	26.23	151
1945	52.67	137	17.85	105	48.16	130	46.47	136	22.35	100	19.22	152	16.92	157
1946	41.47	122	22.59	135	38.66	83	36.05	111	22.31	94	29.80	177	39.45	193
1947	43.42	137	21.89	146	60.30	146	41.45	137	27.95	135	30.47	163	38.61	181
1948	34.75	126	21.40	122	41.54	106	38.83	131	32.11	101	20.98	155	23.42	178
1949	27.15	126	18.23	119	47.18	121	66.26	149	27.71	100	31.41	163	22.85	157
1950	32.27	122	16.06	91	63.93	152	86.33	183	43.35	132	26.18	147	19.25	131
1951	34.14	127	25.44	135	33.89	87	53.15	143	22.00	103	29.85	155	24.57	163
1952	39.28	123	19.99	128	33.49	122	59.19	130	37.87	141	34.39	177	30.35	165
1953	37.14	119	20.00	121	43.60	101	40.86	110	19.40	102	28.38	148	28.06	162
1954	28.05	112	16.73	109	61.36	142	41.29	134	18.81	82	33.53	139	27.20	143
1955	46.52	138	24.58	134	50.41	136	72.46	160	30.85	124	30.70	160	22.32	168
1956	37.35	107	27.24	154	59.18	120	67.33	155	40.46	150	30.96	188	36.63	175
1957	33.40	117	16.71	110	20.58	80	27.13	110	14.41	81	20.68	146	28.66	129
1958	32.08	107	17.57	121	46.61	115	59.19	144	30.23	117	26.98	155	36.55	166
1959	24.23	114	11.32	88	45.84	146	59.67	164	34.41	112	25.84	131	19.28	136
1960	28.21	112	23.07	129	27.51	103	51.01	152	30.99	136	33.50	162	29.35	140
1961	32.27	113	14.91	122	42.36	134	57.08	161	32.34	116	22.05	129	18.03	156
1962	28.75	123	17.96	125	41.39	131	44.90	137	28.91	126	23.06	140	25.40	161
1963	39.14	140	24.43	118	49.09	134	80.11	169	25.37	141	29.04	149	15.51	129
1964	38.40	127	21.89	135	48.18	112	43.30	99	28.69	121	27.80	166	28.06	169
Average	34.80	121	20.93	121	44.71	124	47.80	150	25.59	107	25.97	143	24.88	165
No. of years	89	89	126	126	113	105	106	106	37	37	109	109	82	82
Standard 30 years' normal(c)	35.99	128	21.09	122	40.09	117	44.80	143	24.53	103	25.89	156	25.03	180

(a) Commonwealth Forestry Bureau; records in issues of the Year Book prior to No. 36 were for the station at Acton which closed down in 1939. (b) Records taken from present site commenced 1883. (c) 1911-1940. (d) Thirty years to 1957 inclusive.

Prolonged dry spells are fairly common in much of Australia particularly in inland areas. A detailed discussion of the history of droughts and the frequency in particular areas may be found in Foley, J. C., *Droughts in Australia*, Bureau of Meteorology Bulletin No. 43 (1957). A shorter account of droughts in Australia will be found in a special article in Year Book No. 43, pages 51-6.

Rainfall and vegetation. In general, the three main climatic zones of the continent exert a particular controlling influence on the general vegetation. These are the northern third of the continent where rainfall is almost always restricted to the warmer months of the year, the southern third where rainfall is predominantly a winter and spring event, and a transitional zone which experiences rainfall from both sources, although in greatly reduced quantity over the interior, which is subject to frequent drought.

The length of the growing season, or conversely the extent of dry periods during the year, decides the type of vegetation which establishes in a region. The climatic influence on vegetative response is primarily through soil moisture and temperature. Thus in colder south-eastern areas the growing season is mainly temperature dependent, but elsewhere the availability of soil

moisture is the prime factor. All rainfall is not equally effective in increasing the soil moisture, its availability from the soil storage to plants depending on the extent of surface run-off, seepage beyond the root zone, and loss by surface evaporation. Furthermore, the effectiveness of available soil moisture depends on the evaporative demand of the local climate; for example, an inch of stored moisture may maintain vigorous plant growth for twice as long in Tasmania as in the warmer, drier atmosphere of inland New South Wales. Thus it is not a sound practice to assess the agricultural potential of different areas simply by reference to average rainfall.

Generally speaking, the length of the growing season exceeds nine months over the far south-west of Western Australia and in all eastern coastal districts from Cape York Peninsula to Western Victoria, and within this region humid and semi-humid plant formations thrive. Soil types, of course, also play a part in the distribution of vegetation, but they too are, to a considerable extent, the result of climate and weather.

The climate of Arnhem Land (Northern Territory) is such that there is a considerable surplus of moisture for about five months of the warm season, followed regularly by a virtual drought which frequently reaches severe intensity, and this special combination of meteorological conditions results in annual and perennial vegetation adapted to this cycle.

Over the interior the position is more complex because of the lower levels of the rainfall, its greater variability, and the high evaporative power of the drier, warmer atmosphere. In this vast section of the continent the climatic demands are so severe that the vegetative formations of the moister zones (i.e. the mesophytes, requiring about five months or longer growing season) are unable to exist. Thus a plant species adapted to these very dry and variable conditions (xerophytes), e.g. spinifex, salt bush, blue bush and stunted eucalypts capable of maintaining a cattle population, predominates over the arid interior.

The arid and semi-arid lands of Western Australia and inland New South Wales which border the desert carry the majority of the sheep in these States. In New South Wales the most important vegetative formations in these areas are savannah (treeless plains), savannah woodland, mulga scrub and mallee scrub. In Western Australia sclerophyllous grass steppe and mulga scrub border the deserts and are succeeded to the south by zones of mallee scrub and mallee heath.

Rainfall intensity. The study of extremely high rainfall intensities is important in the investigation of the flow characteristics of river systems and flood prevention measures, the design of irrigation works and hydro-electric schemes. Some of the more notable falls in a period of 24 hours are listed for the various States in the following tables. Most of the very high intensities have occurred in the coastal strip of Queensland, where the combination of a tropical cyclone moving close to mountainous terrain provides ideal conditions for spectacular falls. The highest fall recorded in 24 hours, 35.71 inches, occurred at Crohamhurst, Queensland, on 3 February 1893.

Rainfall at most reporting stations in Australia is recorded only for the 24-hour period from 9 a.m. to 9 a.m. The data in this table are based on these records. Where automatic recording gauges are installed, more detailed intensity data are available for shorter and exactly measured time intervals. For other very heavy falls at various localities, reference may be made to Year Book No. 14, pages 60-4, No. 22, pages 46-8 and No. 29, pages 43, 44 and 51.

HEAVY RAINFALLS TO 1964, INCLUSIVE

Name of town or locality	Date	Amount (inches)	Name of town or locality	Date	Amount (inches)
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WESTERN AUSTRALIA

Whim Creek . . .	3 Apr. 1898	29.41	Roebuck Plains . .	5 Jan. 1917	14.01
Fortesque . . .	3 May 1890	23.36	Broome . . .	6 Jan. 1917	14.00
Roebuck Plains . .	6 Jan. 1917	22.36	Onslow P.O. . .	8 Feb. 1963	14.00
Widjip . . .	1 Apr. 1934	19.54	Carlton Hill . . .	7 Feb. 1942	12.75
Kimberley			Wyndham . . .	4 Mar. 1919	12.50
(Research) . . .	6 Apr. 1959	16.98	Onslow P.O. . .	3 Mar. 1961	12.38
Derby . . .	7 Jan. 1917	16.47	Onslow Aerodrome.	3 Mar. 1961	12.29
Boodarie . . .	21 Mar. 1899	14.53	Towrana . . .	1 Mar. 1943	12.16
Balla Balla . . .	21 Mar. 1899	14.40	Marble Bar . . .	2 Mar. 1941	12.00
Winderrrie . . .	17 Jan. 1923	14.23	Jimba Jimba . . .	1 Mar. 1943	11.54
Pilbara . . .	2 Apr. 1898	14.04			

HEAVY RAINFALLS TO 1964, INCLUSIVE—*continued*

Name of town or locality	Date	Amount (inches)	Name of town or locality	Date	Amount (inches)
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NORTHERN TERRITORY

Brocks Creek .	24 Dec. 1915	14.33	Borrooloola .	7 Jan. 1940	12.68
Groote Eylandt .	9 Apr. 1931	14.29	Borrooloola .	4 Feb. 1938	12.00
Borrooloola .	14 Mar. 1899	14.00	Bathurst Island		
Timber Creek .	5 Feb. 1942	13.65	Mission .	7 Apr. 1925	11.85
Cape Don .	13 Jan. 1935	13.58	Darwin .	7 Jan. 1897	11.67

SOUTH AUSTRALIA

Ardrossan .	18 Feb. 1946	8.10	Port Victoria .	18 Feb. 1946	7.08
Carpa .	18 Feb. 1946	7.83	Wynbring .	28 Feb. 1921	7.00
Edithburgh .	18 Feb. 1946	7.46	Mannum .	25 Jan. 1941	6.84
Hesso .	18 Feb. 1946	7.36	Wirrabarra Forest		
Maitland .	18 Feb. 1946	7.21	Reserve .	7 Mar. 1910	6.80
Wilmington .	1 Mar. 1921	7.12	Cape Willoughby .	18 Feb. 1946	6.80

QUEENSLAND

Crohamhurst .	3 Feb. 1893	35.71	Springbrook .	21 Feb. 1954	27.04
Finch-Hatton .	18 Feb. 1958	34.58	Mt. Jukes .	18 Feb. 1958	26.40
Port Douglas .	1 Apr. 1911	31.53	Buderim Mountain .	12 Jan. 1898	26.20
Yarrabah .	2 Apr. 1911	30.65	Byfield (Parnass		
Mt. Charlton .	18 Feb. 1958	29.95	Vale) .	3 Mar. 1949	25.43
Mooloolah .	3 Feb. 1893	29.11	Flat Top Island .	21 Jan. 1918	25.18
Kuranda .	2 Apr. 1911	28.80	Landsborough .	3 Feb. 1893	25.15
Calen .	18 Feb. 1958	27.84	Harvey Creek .	31 Jan. 1913	24.72
Harvey Creek .	3 Jan. 1911	27.75	Kuranda .	1 Apr. 1911	24.30
Sarina .	26 Feb. 1913	27.75	Babinda (Cairns)	2 Mar. 1935	24.14
Plane Ck. (Mackay).	26 Feb. 1913	27.73	Goondi .	30 Jan. 1913	24.10
Deeral .	2 Mar. 1935	27.60	Banyan (Cardwell) .	12 Feb. 1927	24.00
Yarrabah Mission .	24 Jan. 1916	27.20	Carruchan .	24 Jan. 1934	24.00
Springbrook .	24 Jan. 1947	27.07	Tully Mill .	12 Feb. 1927	23.86

NEW SOUTH WALES

Dorrigo .	24 June 1950	25.04	Tallowood Point .	21 Feb. 1954	19.87
Cordeaux River .	14 Feb. 1898	22.58	Buladelah .	16 Apr. 1927	19.80
Morpeth .	9 Mar. 1893	21.52	Orara Upper .	24 June 1950	19.80
Broger's Creek .	13 Jan. 1911	20.83	Dorrigo (Townsend)	11 July 1962	19.18
South Head (Sydney			Tallowood Point .	24 June 1950	18.82
Harbour) .	16 Oct. 1844	20.41	Madden's Creek .	13 Jan. 1911	18.68
" " .	29 Apr. 1841	20.12	Condong .	27 Mar. 1887	18.66
Mount Pleasant .	5 May 1925	20.10	Candelo .	27 Feb. 1919	18.58
Broger's Creek .	14 Feb. 1898	20.05	Tallowood Point .	22 Jan. 1959	18.55
Towamba .	5 Mar. 1893	20.00	Mt. Kembla .	13 Jan. 1911	18.25
Viaduct Creek .	15 Mar. 1936	20.00	Bega .	27 Feb. 1919	17.88





BUREAU OF METEOROLOGY.

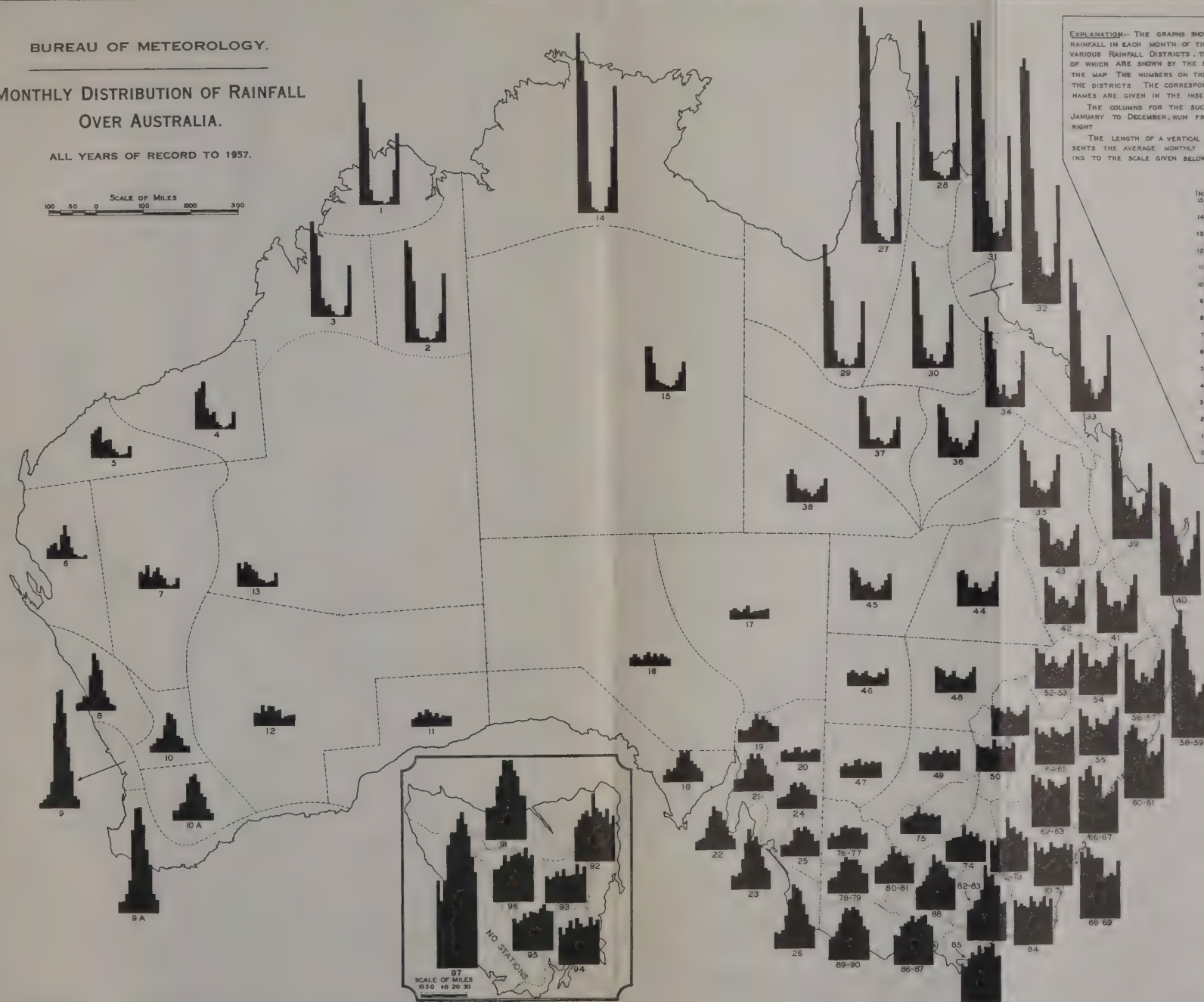
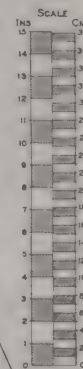
MONTHLY DISTRIBUTION OF RAINFALL OVER AUSTRALIA.

ALL YEARS OF RECORD TO 1957.

SCALE OF MILES
100 50 0 100 200 300

EXPLANATION-- The graphs show the average rainfall in each month of the year in the various rainfall districts; the boundaries of which are shown by the broken lines on the map. The numbers on the map refer to the districts. The corresponding district names are given in the insert on page 89. The columns for the successive months, January to December, run from left to right.

The length of a vertical column represents the average monthly rainfall according to the scale given below.











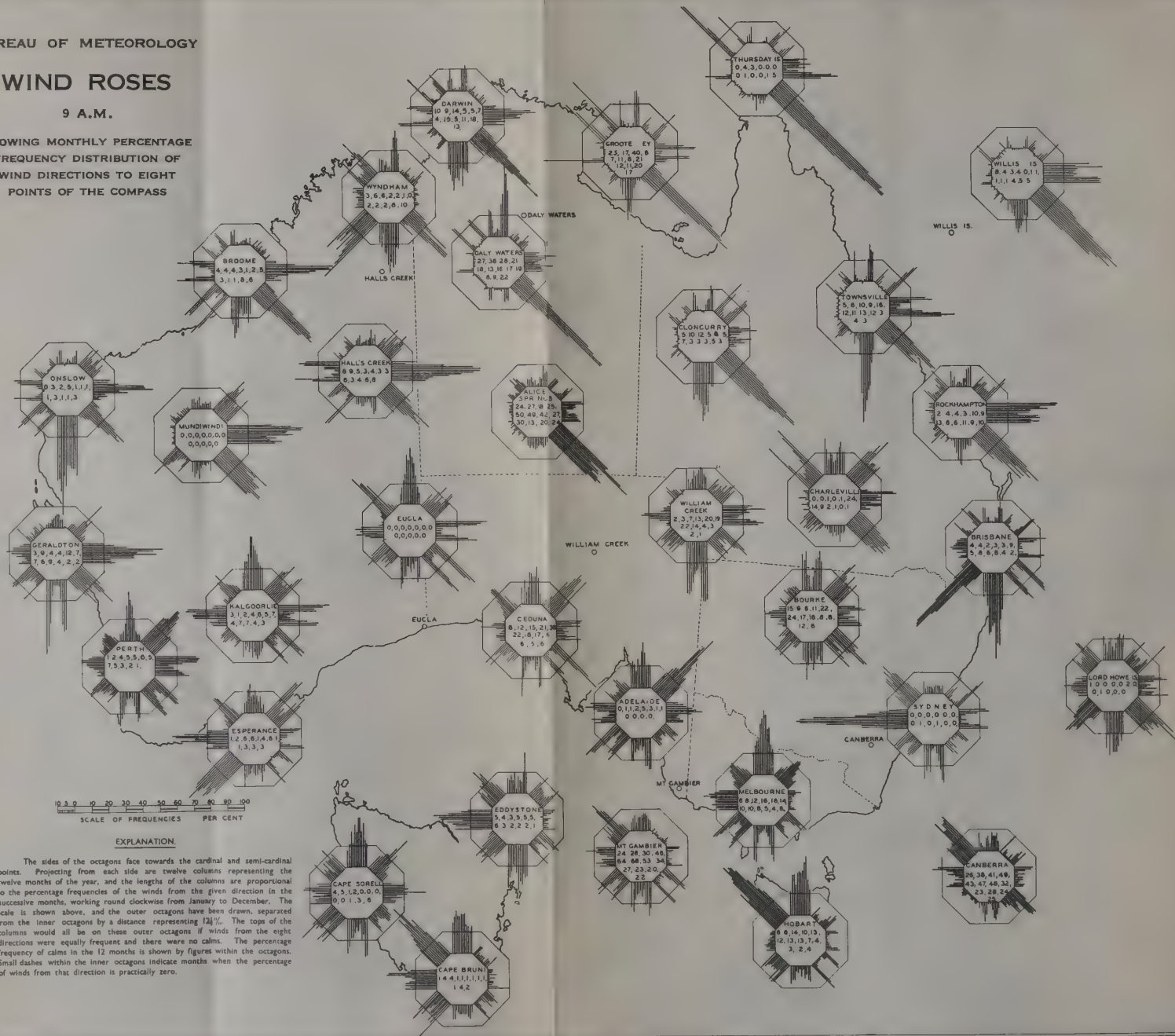


BUREAU OF METEOROLOGY

WIND ROSES

9 A.M.

SHOWING MONTHLY PERCENTAGE
FREQUENCY DISTRIBUTION OF
WIND DIRECTIONS TO EIGHT
POINTS OF THE COMPASS

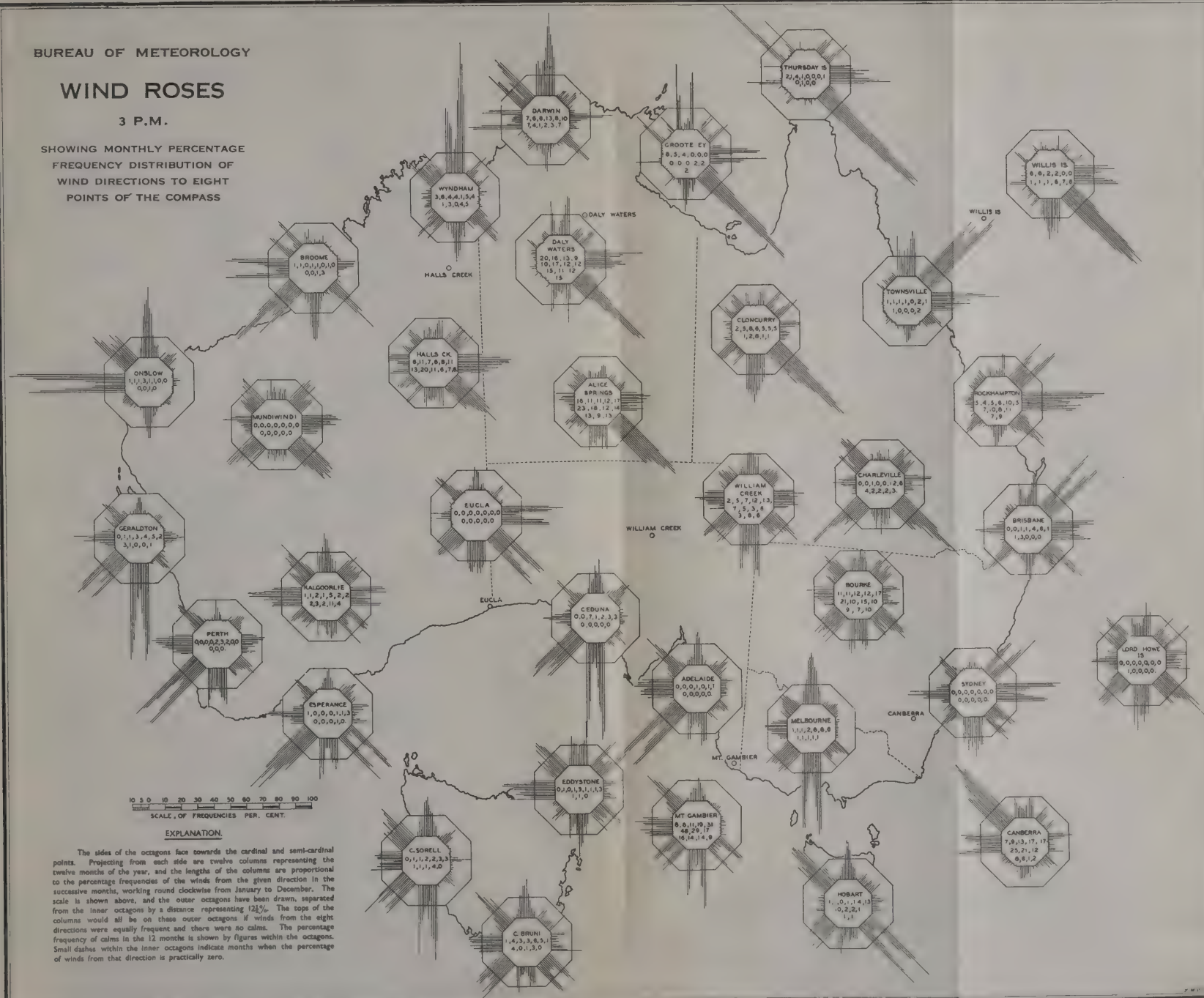


BUREAU OF METEOROLOGY

WIND ROSES

3 P.M.

SHOWING MONTHLY PERCENTAGE
FREQUENCY DISTRIBUTION OF
WIND DIRECTIONS TO EIGHT
POINTS OF THE COMPASS





HEAVY RAINFALLS TO 1964, INCLUSIVE—*continued*

Name of town or locality	Date	Amount (inches)	Name of town or locality	Date	Amount (inches)
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AUSTRALIAN CAPITAL TERRITORY

Jervis Bay	29 Apr. 1963	7.15	Uriarra (Woodside).	27 May 1925	6.57
Cotter Junction	27 May 1925	7.13	Land's End	27 May 1925	6.35
Canberra (Acton)	27 May 1925	6.84			

VICTORIA

Balook	18 Feb. 1951	10.81	Blackwood (Green-hill)	26 Jan. 1941	8.98
Hazel Park	1 Dec. 1934	10.50	Tambo Crossing	13 July 1925	8.89
Kalorama	1 Dec. 1934	10.05	Corinella	28 June 1948	8.75
Cann River	16 Mar. 1938	9.94	Erica	1 Dec. 1934	8.66
Tonghi Creek	27 Feb. 1919	9.90	Mt. Buffalo	6 June 1917	8.53
Cann River	27 Feb. 1919	9.56	Korumburra	1 Dec. 1934	8.51
Olinda	1 Dec. 1934	9.10			

TASMANIA

Mathinna	5 Apr. 1929	13.25	Riana	5 Apr. 1929	11.08
Cullenswood	5 Apr. 1929	11.12	Triabunna	5 June 1923	10.20

Snow and hail. For varying periods from late autumn to early spring snow usually covers the ground to a great extent on the Australian Alps above a level of about 4,500 to 5,000 feet, where in both New South Wales and Victoria ski-ing resorts operate throughout the season.

In Tasmania also the highlands are frequently covered above the 3,500 feet level for extended periods of the winter. There are, however, some years when snowfalls are much lighter than normal and even fail completely. Light snow has been known to fall occasionally as far north as the New England plateau in New South Wales (latitude 31° S.), and in exceptional seasons much of the dividing range from Victoria to Toowoomba (Queensland) has been covered above a level of about 4,000 feet. In ravines around Mount Kosciusko small areas of snow may persist throughout the summer after a heavy winter fall. This winter snowfall of south-eastern Australia is important in aiding the reliable flow of many streams which are utilized in the hydro-electric schemes of the Snowy Mountains, northern Victoria, and Tasmania. Snowfall at low terrain elevations occurs from time to time, particularly in Tasmania and Victoria, but falls are usually light and rarely lie more than a few days.

Hail is most frequent in winter and spring along the south-eastern coastal region of the continent and in Tasmania, where it is usually of a relatively small size. Summer storms, however, which are quite frequent, particularly in the highland plateau regions of eastern Australia, often produce stones of large size and of destructive intensity. Very large stones capable of piercing light gauge galvanized iron are reported from time to time, and damage to fruit crops in south-eastern Australia from large hail stones is quite frequent.

Floods. In general, flooding in Australia is most pronounced on the shorter streams flowing from the Great Dividing Range into the Pacific Ocean along the seaboard of Queensland and New South Wales. These floods are particularly destructive on the more densely populated coast of New South Wales. The chief rivers in this area are the Tweed, Richmond, Clarence, McLeay, Nepean, Hawkesbury, Hunter and Shoalhaven, all of which experience quite frequent and considerable flooding. These floods occur chiefly in summer but may occur at any time of the year.

The great Fitzroy and Burdekin river systems in Queensland are also subject to floods during the summer wet season, while much of the heavy monsoon rain in northern Queensland flows southward through the normally dry channels of the network of rivers draining into Lake Eyre. This water may cause extensive floods over a vast area, but it is soon lost by seepage and evaporation and rarely reaches the lake in any quantity. The Condamine and the other tributaries of the Darling also carry considerable volumes of water south through western New South Wales to the Murray, and flooding along their courses occurs from time to time.

Flooding also occurs from time to time, usually in autumn, winter and spring, in the Murray-Murrumbidgee system of New South Wales and Victoria and on the smaller coastal streams of southern Victoria. In Tasmania, flooding of the north coast streams, particularly the South Esk system, is common in the same seasons. In South Australia, some flooding has occurred in the lower reaches of the Murray owing to rainfall as far away as Queensland and south-eastern New South Wales. In the north of Western Australia and the Northern Territory, flooding of the coastal streams occurs frequently in summer but is not of such economic importance as the flooding of the eastern coastal streams of the continent, where many localities are more vulnerable to damage.

Temperature

The accurate measurement of the temperature of the air is not easy, as temperature sensitive devices also absorb radiant heat or can lose heat by radiation. Following international practice, air temperature measurements in Australia are made by thermometers freely exposed in a double louvered box (the Stevenson screen). Maximum and minimum air temperatures during each day are measured by means of special thermometers exposed in the Stevenson screen. The minimum air temperature at the surface of the earth as the ground cools at night by outgoing radiation (the terrestrial or grass minimum) is also measured at many stations. Such temperature recordings measure a theoretical physical quantity which bears only an indirect relation to the comfort or discomfort a person feels. Temperature measurements alone may be regarded only as a first approximation to a measurement of personal comfort. The actual degree of personal comfort is related to a number of meteorological factors such as air temperature, windspeed, humidity, exposure to the sun's rays, and the temperature of surrounding surfaces (i.e. the radiation balance of the body).

In addition to these quantities which are all physically measurable, a number of personal quantities are involved which vary greatly from person to person and which cannot be precisely expressed, e.g., race and acclimatization, age and state of health, type of clothing, and degree of physical activity in work and recreation. Conditions thus vary greatly for a particular individual even in a fixed location, so that it is difficult to describe general comfort variability uniquely throughout a region as varied climatically as Australia. A number of indexes which attempt to incorporate some of the factors described above have been used experimentally from time to time, and further research continues on this very difficult problem. Generally speaking, there is an increase in discomfort northwards within the tropical regions of Australia in summer, owing to the heat and high absolute humidity which reach a maximum in the extreme north of the continent. Such conditions are, however, ameliorated to a large extent in highland areas such as the Atherton Tableland in Queensland. No part of Australia is uncomfortably hot in winter, and only in a small area of the Australian Alps and highland Tasmania does bodily strain due to cold exist in winter. The history of the settlement of the northern regions of Queensland and the Northern Territory indicates that with accelerating development of studies and experience in the arrangement of living and working accommodation, clothing, and general way of life, the effects of extremes of climate can be minimized.

For some further discussion of the problems of temperature and comfort conditions reference may be made to Ashton, H. T., *Meteorological Data for Air Conditioning in Australia*, Bureau of Meteorology Bulletin No. 47 (1964).

Average seasonal temperature distribution. Plates 5 to 8 show the normal daily maximum and minimum temperature for January and July, which may be taken as indicative respectively of the summer and winter seasons in Australia. Further detailed temperature data are presented on pages 40-49 for the capital cities and more important country towns of the Commonwealth.

On the basis of average annual mean temperatures, and latitude for latitude, Australia is somewhat cooler than the other land masses of the southern hemisphere and considerably cooler than the same latitudes in the large continental areas of the northern hemisphere. This is due to the insular nature of Australia and the stronger general circulation of the atmosphere in the southern hemisphere resulting in the transport of higher latitude (cooler) air into the subtropical regions.

July is the month with the lowest mean temperature in all parts of the continent, while the month with the highest mean temperature varies from February in Tasmania and southern Victoria to December in the northern part of the continent and November in Darwin. The

lateness of the month of highest average temperature in the extreme south of the continent is due in part to the effect of the Southern Ocean, where the sea surface temperature reaches its maximum in February. The cooler period of the late summer in the north is due largely to increased cloudiness associated with the inflow of north-west winds with the onset of the monsoon season.

In January average maximum temperatures exceed 95° F. over a vast area of the interior of the continent, and over large areas exceed 100° F. The hottest part of Australia is situated in the north of Western Australia around the Marble Bar and Nullagine area, where the daily maximum screen temperature during the summer frequently exceeds 100° F. for weeks at a time.

The marked change of maximum temperature in summer with distance from the sea, in areas close to the coasts, particularly along the Great Australian Bight and the Indian Ocean coast of Western Australia, is due to the penetration inland of the vigorous sea breezes which are initiated by the considerable temperature contrast between land and sea surface temperatures. The 75° F. isotherm of January mean maximum temperature skirts the southern coast of the continent from south-western Western Australia to Gippsland.

In January the mean minimum temperatures in the tropics, except for some highland regions, exceed 72° F., with a gradual decrease southward to values of 55° F. in Victoria and 50° F. in Tasmania. Highland regions in the south have mean values of 45° F. and lower. In July a more regular latitudinal distribution of mean maximum temperature is evident, only the extreme north of the continent having mean maxima higher than 80° F. Values lower than 60° F. are general over the south-eastern part of the continent, with mean maxima falling below 40° F. in small alpine areas. Average night minimum temperatures in July fall below 45° F. in areas south of the tropics and away from the coast. Alpine regions again record the lowest temperatures with some areas experiencing means lower than 25° F.

Extreme variation and daily range. Only at a few inland places in Australia does the absolute range of temperature (i.e. the range from the highest maximum to the lowest minimum) exceed 100° F. Generally it is in the range 70° F. to 90° F. in the inland areas and somewhat less on the coasts. The highest temperature recorded in Australia was 127.5° F. at Cloncurry (Queensland) on 16 January 1889 and the lowest -8° F. at Charlotte Pass in the southern Alps on 14 July 1945 and again on 22 August 1947. The world record maximum temperature is 136° F. at Azizia (Tripoli) on 13 August 1922 and the world record minimum temperature -126.9° F. at Vostok on the Antarctic plateau on 24 August 1960.

High temperatures. Heat waves with a number of successive days higher than 100° F. are relatively common in many parts of Australia. With the exception of the north-western coast of Western Australia, however, most coastal areas do not usually experience more than a few days in succession of such conditions. The frequency of such conditions increases inland, and periods of up to twenty days have been recorded over most of the settled areas. This figure increases in western Queensland and north-western Western Australia to more than sixty days in places. The central part of the Northern Territory and the Marble Bar-Nullagine area of Western Australia have recorded the most prolonged heat waves for the Australian region. The longest consecutive period of daily maxima greater than 100° F. was 160 consecutive days recorded in Marble Bar during the summer of 1923-24.

Frosts. Injury to the tissues of growing plants is not caused until the temperature has fallen considerably below the freezing point of water (32° F.), and a ground frost is regarded as having occurred when the grass thermometer has fallen below 30.4° F. However, as terrestrial minima are not recorded at all stations, it is usual for statistical purposes to regard the registration of a screen thermometer of 36° F. as indicating a 'light' frost. A map showing frequency of days with screen minima higher than 36° F. (i.e. the frost free period) is reproduced in plate 9. A 'heavy' frost is taken as a screen reading of less than 32° F. A 'black' frost occurs with a combination of low temperature and low humidity, and, although frost crystals are not observed on the ground, damage takes place to the plant cells by the freezing and expansion of the moisture they contain.

The frequency of frost depends largely on altitude, latitude, and proximity to the sea, and locally, to a very large extent, on even minor variations in contour of the land. The parts of Australia which are most subject to frost are the eastern highlands from north-eastern Victoria to the western Darling Downs in southern Queensland. Most stations in this region experience more than ten nights a month with readings of 32° F. or under for three to five months of the year. On Tasmania's Central Plateau similar conditions occur for three to six months of the year. Heavy frosts are comparatively infrequent in Western Australia, except in parts of the south and south-west. In South Australia frosts are most frequent in the agricultural areas of the south-east.

Frosts may occur within a few miles of the coast over the whole continent except the Northern Territory and most of north Queensland. Regions subject to frost at all times of the year comprise the whole of Tasmania, the tablelands of New South Wales, much of inland Victoria, particularly the north-east, and a small part of south-western Western Australia. Over most of the interior of the continent, and on the highlands of Queensland as far north as the Atherton Plateau, frosts commence in April and end in September, but they are infrequent in these months. Minimum temperatures below 32° F. are experienced in most of the sub-tropical interior in June and July.

For further details of frost conditions in Australia reference should be made to Foley, J. C., *Frost in the Australian Region*, Bureau of Meteorology Bulletin No. 32 (1945).

Humidity and saturation deficit

The amount of water vapour in the atmosphere is determined mainly by the temperature. The higher the temperature the more water vapour may be contained in a given mass of air. Vapour pressure is the pressure exerted by the water vapour of the atmosphere. At any given temperature there is a definite upper limit to the amount of water that can exist as vapour in the air. When this limit is reached the air is said to be saturated and the pressure of the water vapour is the saturation vapour pressure. Both these quantities may be expressed in millibars or in inches of mercury. The usual measure of humidity or moistness of the air is the relative humidity (which is measured by means of wet and dry bulb screen thermometers). This term is applied to the ratio of the existing vapour pressure to the saturated vapour pressure at the existing temperature and expressed as a percentage. However, from the point of view of physical comfort and in many industrial and agricultural problems, the more important measure of atmospheric water vapour is the absolute humidity or the actual mass of moisture contained in a fixed mass of air.

The annual variation of vapour pressure for regions outside the tropics closely follows that of temperature. However, the mean relative humidity in the temperate regions is generally highest in winter and lowest during the summer. In northern Australia the highest relative humidity occurs during the rainy summer season. The relative humidity variation during the day closely follows the diurnal variation of temperature, being highest with low temperatures and lowest with high temperatures. The relative humidity at 9 a.m. for Australian conditions may be considered as a close approximation to the mean for the whole day. In the tables for the capital cities, pages 40-47, the mean monthly vapour pressure and relative humidity for 9 a.m., together with the monthly extremes, are listed. The order of the stations in descending values of mean annual vapour pressure at 9 a.m. is Darwin, Brisbane, Sydney, Perth, Melbourne, Adelaide, Canberra, and Hobart, while the annual mean of the 9 a.m. relative humidities diminishes in the order Hobart, Melbourne, Sydney, Darwin, Brisbane, Canberra, Perth, and Adelaide.

Another method of humidity measurement which may be employed is the saturation vapour deficit. This may be defined as the difference between the saturation vapour pressure and the actual vapour pressure both referred to the dry bulb temperature. It is thus a measure of the drying power of the air and like vapour pressure may be expressed in millibars or inches of mercury.

In January the mean saturation deficit at the mean temperature for the month has a maximum value of over 0.90 inches in the central parts of Western Australia and in south-eastern Queensland. Gradual decreases occur towards the coast, where values close to the north, east, and south coastlines are around 0.20 inches. On the western coast values are somewhat higher, and a strong gradient exists in the saturation deficit in the narrow region bordering the Indian Ocean. In July the variation is less, with maxima of 0.40 inches in the dry north of the Northern Territory and Western Australia, slowly decreasing generally to the south, with values over most of the south-east and extreme south-west of the continent being less than 0.10 inches. Extremely low values (less than 0.025 inches) exist in July over the highlands of south-eastern Australia and Tasmania.

Evaporation

Evaporation is a process which results in the transfer of water vapour from the surface of the earth into the atmosphere and takes place from free water surfaces, from moist soil, and by the process of transpiration from plants. The figures quoted in this section, however, refer to evaporation as measured from an Australian standard evaporation tank. This instrument consists of a copper tank surrounded by a 6-inch water jacket sunk in the ground to a depth of 36 inches and exposing at ground level a water surface 36 inches in diameter from which the evaporation loss of water is measured. Earlier estimates of Australian evaporation data were supplemented by calculations based on an empirical formula dependent on saturation deficit, but more recent measurements have enabled charts of monthly and annual evaporation to be constructed wholly

from observational records. Such a map is plate 10. The rate and quantity of evaporation in any territory are influenced by the net radiation, prevailing temperature, vapour pressure, and turbulent diffusion by wind.

In Australia the study of evaporation is of great importance, since in its drier regions water conservation must be practised by the use of tanks and dams. The magnitude of the economic loss by evaporation may be appreciated from plate 10, which shows that the yearly amount varies from 20 inches over the highland areas of central Tasmania to more than 130 inches in the northern and north-western part of South Australia.

Over an area of some 70 per cent of the continent, comprising most inland districts and extending to the coast in the north-west of Western Australia and to the head of the Great Australian Bight, the rainfall does not exceed the evaporation loss in any month of the year. The central and north-western portions of the continent experience evaporation far in excess of their rainfall. Vegetation over these areas is characterized by acacia, scrub steppe, and arid scrub, while many areas are merely sand hills and stony desert. Over many of the drier areas, however, particularly in the inland areas of south-eastern Australia, the loss of rainfall by evaporation is made good to some extent by the development of irrigation schemes. Some of these schemes, such as those at the Murrumbidgee Irrigation Area in New South Wales and at Mildura in Victoria and Renmark in South Australia, have been very successful. The Snowy Mountains Hydro-electric Scheme will also result in the large scale supply of water from the south-eastern highlands of Australia for use in the drier areas to the west of the ranges in New South Wales and Victoria. The future development of such schemes as these holds promise for the reclamation of many marginal areas in Australia, which because of low rainfall and high evaporation are at present of little economic value.

Since the loss by evaporation depends largely on the net radiation absorbed and consequently on the extent of the exposed area, tanks and dams so designed that the surface area shall be a minimum are advantageous. Further, the more protected they are from the direct rays of the sun and from winds by means of suitable tree planting the less will be the evaporation loss. The Mansfield process for the treatment of tanks and dams by a mono-molecular chemical film which materially reduces evaporation is a recent development which is already giving beneficial results, particularly on large water storage areas. Such improvements are of considerable importance to the pastoralists of the drier regions of Australia and to water supply authorities.

Further information on evaporation may be found in Hounam, C. E., *Evaporation in Australia*, Bureau of Meteorology Bulletin No. 44 (1961).

Sunshine and cloud

The proportion of the sky covered by cloud is of considerable meteorological and climatological importance. A cloud cover inhibits both incoming and outgoing radiation and thus profoundly affects the temperature distribution and other factors at the earth's surface. Cloud amount is measured in eighths of the sky covered.

In Australia the seasonal changes in cloudiness correspond closely to that of rainfall. In the southern or more temperate parts of the continent, particularly in the coastal and low lying areas, the winter months are generally more cloudy than the summer. This is due to the formation of extensive areas of stratiform cloud and fog during the colder months, when the structure of the lower layers of the atmosphere favours the physical processes resulting in this type of cloud. A particularly strong annual periodicity exists in the monsoonal regions of northern Australia, where it is heavily clouded during the summer wet season and practically cloudless during the winter 'dry'. Cloudiness is higher near coasts and on the windward slopes of the mountains of eastern Australia and is least over the dry interior parts of the continent.

A close relationship exists between cloud amount and number of sunshine hours, and it is possible to estimate from cloud data the equivalent number of sunshine hours over a given period. These data can be incorporated with records of direct measurement of sunshine hours, and approximate distribution maps produced for Australia. Maps of the mean sunshine distribution for January and July are reproduced in plates 11 and 12 and indicate the main features of the variation over Australia in these months.

Except for Tasmania and a narrow fringe bordering the southern, eastern and northern coasts, the greater part of the continent receives more than 3,000 hours of sunshine each year, and in Central Australia and the mid-western coast of Western Australia, totals in excess of 3,500 hours occur. The extreme south coast receives in the main 2,000 to 2,500 hours annually, while the east coast regions of New South Wales and Queensland receive 2,500 to 3,000 hours. A minimum of less than 1,750 hours occurs on the west coast and highlands of Tasmania.

Mean amounts of cloud for each month at the capital cities are included in the tables on pages 40–47, as are the mean daily hours of sunshine. The latter figure is a good single measure of the relative climatic characteristics of the individual cities for different months of the year.

Wind

Australia lies in those latitudes of the southern hemisphere where it is influenced largely by two wind systems:

- (a) the south-east trade winds blowing on the equatorial side of the mid-latitude anticyclones; and
- (b) the westerlies south of the mid-latitude anticyclones in which successive low pressure systems move eastward over the Southern Ocean.

The only pronounced seasonal variations of atmospheric pressure in the middle and high latitudes of the southern hemisphere are related to the latitudinal shift in the axes of the sub-tropical high pressure systems and to the change in the tracks of the migratory anticyclones. The latter systems move generally from west to east in the Australian region between the semi-permanent oceanic anticyclones of the Indian and Pacific Oceans. The mean path of these systems lies over southern Australia during the summer but moves northwards during the winter with the thermal equator. The movement is only of a few degrees of latitude but it is of very great importance to the climate of the Australian continent. During the summer months, when the anticyclones move on a more southerly track, the south-east trades affect the whole coast of eastern Australia north of around latitude 30° S., the westerlies retreating to higher latitudes, and conditions are more settled over southern Australia which then lies close to the axis of the anticyclones. In winter the anticyclones move further north, the trades affect only the northern parts of the continent, and southern Australia is exposed to the westerlies of the Southern Ocean.

In summer, with the retreat of the anticyclones to the south, the whole of northern and north-western Australia is exposed initially to light wind systems, and then during the period from December to April to the effects of the north-west monsoon. This process, which is associated with an inflow of north-west winds and intensive rains, is not as regular or persistent as the south-west monsoon of south-east Asia. However, it is a sufficiently regular feature of the climate of northern Australia to be designated as the north-west season, or, as it is best known in the area, 'the wet'. Its influence affects areas as far south as central Queensland, but southern Queensland and the area east of the Great Dividing Range are largely still under the influence of the south-east trades. Fringe or marginal areas on the southern limits of the monsoonal penetration over the continent have a shorter and more uncertain 'wet' season, which in some years fails to appear at all. With the northward advance of the anticyclones in autumn, the monsoon gives way again to the trades, and 'the dry' of northern and north-western Australia commences.

The general features of these wind patterns may be seen in the wind rose diagrams of plates 13 and 14. It is important, however, to note the dynamic nature of the atmosphere, and that the continual growth, decay and motion of the pressure systems result in a wide diversity of wind-flow types. Descriptions of wind conditions for particular geographical areas and seasons can thus be only of a very generalized kind. Further, local features can also be imposed on the overall wind pattern — channelling of winds due to topography (e.g. the high frequency of north-west winds in Hobart) and the marked summer sea breeze characteristics of most of the Australian coast, particularly near the Great Australian Bight as shown in the diagrams of 3 p.m. wind frequencies.

Storms and tropical cyclones

In general there are two types of weather systems in Australia which produce very strong winds and heavy rainfalls over large areas of the continent:

- (a) the active depressions which move westwards over the Southern Ocean; and
- (b) the tropical cyclones or hurricanes of north-eastern and north-western Australia.

During the winter the southern shores of the continent are subject to the deep depressions of the southern low pressure belt. They are felt most severely over the south-west of Western Australia, the south-east of South Australia, southern Victoria, and Tasmania, and may move inland in all these regions bringing strong winds and heavy rainfall. Further extensions of this type of system frequently develop close to the coast of New South Wales, often bringing severe weather to this region and to southern Queensland. These are generally known as 'east coast lows'.

The frontal systems (i.e. the narrow zones characterized by cloud and bad weather separating two air masses of different density) which are associated with these depressions vary widely in character. A common type in south-east Australia is a cold front located in a \wedge shaped trough. Such a system usually brings very strong north to north-west winds in advance of the front with a very abrupt backing of the wind to colder west to south-westerly winds after the frontal passage. Such frontal passages are, in their most severe form, associated with thunderstorms and line squalls, heavy rain, and a change to cold winds and showers. These violent changes with the passage of a cold front and strong southerly winds frequently affect the New South Wales coast as far north as Newcastle during the winter, and are popularly known as 'southerly busters'.

The most extensive rains of inland Australia occur when moist tropical air which has moved inland is lifted by convergence ahead of a slow moving colder air mass moving from the southern Ocean. The coast of Queensland, particularly the section from Cooktown to Mackay and the adjacent waters, is subject to visitations by tropical cyclones (the 'hurricanes' of the Caribbean and 'typhoons' of the China Sea). These destructive systems can affect this region from December to April, normally forming in the Coral Sea, moving south-west close to the coast and then passing away to the south-east into the Pacific. They may, however, cross the coast from time to time and bring torrential rain and violent winds (often more than 100 m.p.h.) to the coastal regions.

Similar systems affect the north-west coast of Western Australia where they bear the local name of 'willy willies', a name which is, however, often used generally in Australia for minor local whirlwinds or dust devils. The season in this region generally lasts from November to April, the storms originating in the Timor or Arafura Seas travelling usually south-west and approaching the coast most commonly between latitudes 20° S. and 22° S. Thence the systems may move southward following the coast, or sometimes cross inland bringing high rainfalls to the otherwise dry interior of the continent. A further region which is affected somewhat less frequently by tropical cyclones is the coast of Arnhem Land in the Northern Territory and the waters and coasts of the Gulf of Carpentaria.

Tropical cyclones, in general, soon lose their intensity on crossing from sea to land, but, although the wind force rapidly abates, they are still capable of producing the heavy rainfall which leads to flooding of coastal rivers, damage to stock and property, and general disruption of transport.

Thunderstorms which bring local heavy rain and strong winds are common to most of Australia. They are also of particular importance because of the lightning damage which they cause to power transmission lines, and have been extensively studied for the purpose of siting electrical installations as far as possible in areas of low thunderstorm occurrence. Plate 15 shows the number of days annually on which thunder is heard, which is a better observational criterion than lightning observed. The region of maximum thunderstorm activity is the extreme north-west of the continent and the region south-east of the Gulf of Carpentaria. In the more settled areas, maximum thunderstorm occurrence is in central western and south-eastern Queensland and the highland areas of New South Wales. The minimum number of storms occur over the interior of South Australia, western New South Wales, and eastern Tasmania.

Climatological tables

The averages and extremes for a number of elements which have been determined from long series of observations at the Australian capitals up to and including the year 1963 are given in the following pages, together with more limited data for the larger country towns of the Commonwealth. The following points apply throughout:

- (a) Where records are available, mean or average values have been calculated on a standard period of thirty years from 1911 to 1940.
- (b) Extreme values have been extracted from all available years of actual record, but the number of years quoted does not include intervening periods when observations were temporarily discontinued.

CLIMATOLOGICAL DATA: PERTH, WESTERN AUSTRALIA

(Lat. 31° 57' S., Long. 115° 51' E. Height above M.S.L. 210 ft.)

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS AND CLEAR DAYS

Month	Bar. corrected to 32° F., m.m. sea level and standard gravity from 9 a.m. and 3 p.m. readings	Wind (Height of anemometer 71 feet)					Mean amount of evaporation (inches)	No. of days of lightning	Mean amount of clouds, 9 a.m., 3 p.m., 9 p.m.(a)	No. of clear days
		Average miles per hour	Highest mean speed in one day (miles per hour)	Highest gust speed (miles per hour)	Prevailing direction					
					9 a.m.	3 p.m.				
No. of years of observations.	30(b)	30(b)	67	52	30(b)	30(b)	30(b)	30(b)	30(b)	30(b)
January . . .	29.897	10.9	26.3 27/98	50	E	SSW	10.37	2	2.9	14
February . . .	29.922	10.7	21.5 6/08	54	ENE	SSW	8.63	2	3.1	13
March . . .	29.976	10.1	21.5 6/13	70	E	SSW	7.52	2	3.5	12
April . . .	30.071	8.5	31.5 25/00	63	ENE	SSW	4.62	2	4.2	9
May . . .	30.062	8.4	27.3 29/32	74	NE	WSW	2.80	3	5.4	6
June . . .	30.068	8.4	30.2 17/27	80	N	NW	1.82	2	5.9	5
July . . .	30.082	8.8	33.5 20/26	85	NNE	W	1.76	2	5.6	5
August . . .	30.084	9.4	31.9 15/03	97	N	WNW	2.37	2	5.6	6
September . . .	30.073	9.4	28.5 11/05	68	ENE	SSW	3.44	1	4.9	8
October . . .	30.033	10.0	26.7 6/16	65	SE	SW	5.38	1	4.8	8
November . . .	29.989	10.7	25.7 18/97	63	E	SW	7.65	2	3.9	9
December . . .	29.923	11.0	25.6 6/22	64	E	SSW	9.69	2	3.2	13
Year {	Totals . . .		..	..	E		66.05	23	..	108
	Averages	30.015	9.7	E	SSW	4.4
	Extremes		33.5 20/7/26	97			..	..

(a) Scale 0-10. (b) Standard thirty years' normal (1911-1940).

TEMPERATURE AND SUNSHINE

Month	Mean temperature (°Fahr.)			Extreme shade temperature (°Fahr.)		Extreme range	Extreme temperature (°Fahr.)		Mean daily hours of sunshine				
	Mean max.	Mean min.	Mean	Highest	Lowest		Highest in sun	Lowest on grass					
No. of years over which observation extends .	30(a)	30(a)	30(a)	68	68	68	63(c)	66	30(a)				
January	84.6	63.3	73.9	110.7	29/56	48.6	20/25	62.1	177.3	22/14	39.5	20/25	10.4
February	85.1	63.5	74.3	112.2	8/33	47.7	1/02	64.5	173.7	4/34	39.8	1/13	9.8
March	81.3	61.5	71.4	106.4	14/22	45.8	8/03	60.6	167.0	19/18	36.7	8/03	8.8
April	76.3	57.4	66.8	99.7	9/10	39.3	20/14	60.4	157.0	8/16	31.0	20/14	7.5
May	69.0	52.8	60.9	90.4	2/07	34.3	11/14	56.1	146.0	4/25	25.3	11/14	5.7
June	64.4	49.8	57.1	81.7	2/14	34.9	22/55	46.8	135.5	9/14	25.9	27/46	4.8
July	62.8	48.0	55.4	76.4	21/21	34.2	7/16	42.2	133.2	13/15	25.1	30/20	5.4
August	63.8	48.4	56.1	82.0	21/40	35.4	31/08	46.6	145.1	29/21	26.7	24/35	6.0
September	66.8	50.4	58.6	90.9	30/18	36.7	6/56	54.2	153.6	29/16	27.2	(b)	7.2
October	69.7	52.6	61.1	99.0	26/61	40.0	16/31	59.0	161.2	19/54	29.8	16/31	8.1
November	76.7	57.3	67.0	104.6	24/13	42.0	1/04	62.6	167.0	30/25	35.0	3/47	9.6
December	81.2	60.9	71.0	107.9	20/04	47.5	29/57	60.4	168.8	11/27	38.0	29/57	10.4
Year { Averages	73.5	55.5	64.5	112.2	8/2/33	34.2	7/7/16	78.0	177.3	22/1/14	25.1	30/7/20	7.8
Extremes . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..

(a) Standard thirty years' normal (1911-1940). (b) 8/1952 and 6/1956. (c) Records discontinued 1963.

HUMIDITY, RAINFALL AND FOG

Month	Vapour pressure (inches)	Rel. hum. (%) at 9 a.m.			Rainfall (inches)					Fog
	Mean 9 a.m.	Mean	Highest mean	Lowest mean	Mean monthly	Mean No of days of rain	Greatest monthly	Least monthly	Greatest in one day	Mean No of days of fog
No. of years over which observation extends.	30(a)	30(a)	68	68	30(a)	30(a)	89	89	89	30(a)
January	0.438	51	63	41	0.33	3	2.17 1879	Nil (b)	1.74 27/79	0
February	0.434	51	65	43	0.50	3	6.55 1955	Nil (b)	3.43 17/55	0
March	0.432	57	66	46	0.90	5	5.71 1934	Nil (b)	3.03 9/34	0
April	0.397	61	75	51	1.75	8	5.85 1926	Nil 1920	2.62 30/04	1
May	0.365	70	81	61	5.14	15	12.13 1879	0.77 1949	3.00 17/42	2
June	0.337	75	85	68	7.55	17	18.75 1945	2.16 1877	3.90 10/20	2
July	0.322	76	88	69	7.08	19	16.73 1958	2.42 1876	3.00 4/91	2
August	0.316	71	83	62	5.78	19	12.53 1945	0.46 1902	2.91 14/45	1
September	0.341	66	75	58	3.37	15	7.84 1923	0.34 1916	1.82 4/31	0
October	0.345	60	75	52	2.30	12	7.87 1890	0.15 1946	1.73 3/33	0
November	0.374	52	63	41	0.75	7	2.78 1916	Nil 1891	1.54 29/56	0
December	0.409	51	63	39	0.54	5	3.17 1951	Nil (b)	1.84 3/51	0
Year { Totals					35.99	128				8
Averages	0.376	62								
Extremes			88	39			18.75 6/1945	Nil(c)	3.90 10/6/20	

(a) Standard thirty years' normal (1911-1940). (b) Various years. (c) November to April, various years. Dates in italics relate to nineteenth century.

CLIMATOLOGICAL DATA: DARWIN, NORTHERN TERRITORY

(Lat. 12° 28' S., Long. 130° 51' E. Height above M.S.L. 97 ft.)

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS AND CLEAR DAYS

Month	Bar. corrected to 32° F. m.m. sea level and standard gravity from 9 a.m. and 3 p.m. readings	Wind				Mean amount of evaporation (inches)	No. of days of lightning	Mean amount of clouds, 9 a.m., 3 p.m., 9 p.m.(d)	No. of clear days	
		Average miles per hour	Highest mean speed in one day (miles per hour)	Highest gust speed (miles per hour)	Prevailing direction					
					9 a.m.					3 p.m.
No. of years of observations.	30	14	..	14(b)	..	..	7	30	30	30
January . . .	29.706	6.1	..	66	NW & S	W & NW	5.94	16	7.1	1
February . . .	29.728	6.7	..	54	W & S	W & NW	5.57	16	7.0	1
March . . .	29.751	5.3	..	98	SE	W & NW	6.30	14	6.2	3
April . . .	29.809	6.1	..	42	SE	E	6.44	6	3.5	11
May . . .	29.859	6.5	..	37	SE	E	7.34	1	2.1	19
June . . .	29.892	6.5	..	37	SE	E & SE	7.01	0	1.6	22
July . . .	29.911	6.2	..	38	SE	E & SE	7.05	0	1.4	23
August . . .	29.914	5.9	..	40	SE	NW & N	7.91	0	1.3	23
September . . .	29.886	6.2	..	36	SE & S	NW & N	8.05	1	2.0	18
October . . .	29.850	6.2	..	46	S	NW & N	9.29	8	3.2	10
November . . .	29.797	5.5	..	57	W & S	NW & N	8.00	17	4.8	4
December . . .	29.738	6.2	..	66	NW & S	NW & N	7.37	17	6.0	2
Year { Totals . . .			..	..	..	..		96		137
Year { Averages . . .	29.820	6.1	..	98	SE	NW	7.19	..	3.9	..
Year { Extremes . . .			..	98	..	..		..	..	..

(a) Scale 0-10. (b) No records 1943-1958 inclusive.

TEMPERATURE AND SUNSHINE

Month	Mean temperature (°Fahr.)			Extreme shade temperature (°Fahr.)		Extreme range	Extreme temperature (°Fahr.)		Mean daily hours of sunshine
	Mean max.	Mean min.	Mean	Highest	Lowest		Highest in sun	Lowest on grass	
No. of years over which observation extends .	30	30	30	84(a)	84(a)	84	25(d)	..	13
January . . .	89.9	77.3	83.6	100.0	2/82	68.8	16/59	31.2	168.0
February . . .	89.8	77.1	83.4	100.9	20/87	63.0	25/49	37.9	163.6
March . . .	90.2	77.1	83.6	102.0	(b)	66.6	31/45	35.4	165.6
April . . .	91.9	75.9	83.9	104.0	7/83	60.8	11/43	43.2	163.0
May . . .	90.1	72.6	81.4	102.3	8/84	59.2	8/49	43.1	160.0
June . . .	87.5	69.5	78.5	98.6	17/37	53.8	23/63	44.8	155.2
July . . .	86.6	67.8	77.2	98.0	17/88	50.7	29/42	47.3	156.0
August . . .	88.5	69.7	79.1	98.0	19/00	56.4	11/63	41.6	156.2
September . . .	91.0	73.9	82.5	102.0	20/82	62.1	9/63	39.9	157.0
October . . .	92.6	77.2	84.9	104.9	17/92	68.5	26/45	36.4	160.5
November . . .	93.2	78.2	85.7	103.3	9/84	66.8	4/50	36.5	170.4
December . . .	92.0	78.1	85.0	102.0	9/83	68.5	24/41	33.5	169.0
Year { Averages . . .	90.3	74.5	82.4	104.9	..	50.7	29/7/42	54.2	170.4
Year { Extremes . . .	..	..	..	17/10/1892	..	..	14/11/37	..	..

(a) Years 1882-1941 at Post Office, 1942-1963 at Aerodrome; sites not strictly comparable. (b) 26/1883 and 27/1883. (c) 28/1916 and 3/1921. (d) Records discontinued 1941.

HUMIDITY, RAINFALL AND FOG

Month	Vapour pressure (inches)	Rel. hum. (%) at 9 a.m.			Rainfall (inches)					Fog
	Mean 9 a.m.	Mean	Highest mean	Lowest mean	Mean monthly	No of days of rain	Greatest monthly	Least monthly	Greatest in one day	Mean No of days of fog
No. of years over which observation extends.	57(a)	57(a)	57(a)	57(a)	30	21	96(b)	96(b)	96(b)	30
January . . .	0.925	78	89	69	16.18	20	27.86	1896	2.70	1930
February . . .	0.920	79	88	71	12.37	18	28.23	1956	0.53	1931
March . . .	0.912	78	84	69	11.18	17	21.88	1898	0.81	1911
April . . .	0.800	69	80	60	3.08	6	23.74	1891	Nil	1950
May . . .	0.652	63	76	49	0.33	1	10.27	1882	Nil	(c)
June . . .	0.545	61	75	52	0.09	1	1.53	1902	Nil	(c)
July . . .	0.522	59	71	47	0.01	0	2.56	1900	Nil	(c)
August . . .	0.613	63	73	53	0.02	0	3.30	1947	Nil	(c)
September . . .	0.732	65	73	54	0.60	2	4.26	1942	Nil	(c)
October . . .	0.832	65	72	60	1.93	5	13.34	1954	Nil	(c)
November . . .	0.868	68	75	62	4.32	10	15.72	1938	0.40	1870
December . . .	0.890	73	83	65	8.57	15	22.38	1910	0.98	1934
Year { Totals . . .	..	..	..	..	58.68	95	..	..	..	..
Year { Averages . . .	0.768	68	..	..	..	..	28.23	2/56	Nil	(d)
Year { Extremes . . .	..	..	..	..	..	..	..	..	11.67	7/1/1897

(a) 1882-1938 at Post Office. (b) The figures below are the highest or lowest recorded at either the Post Office or Aerodrome sites. (c) Various years. (d) April to October, various years. Dates in italics relate to nineteenth century.

CLIMATOLOGICAL DATA: ADELAIDE, SOUTH AUSTRALIA

(Lat. 34° 56' S., Long. 138° 35' E. Height above M.S.L. 140 ft.)

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS AND CLEAR DAYS

Month	Bar. corrected to 32° F. mn. sea level and standard gravity from 9 a.m. and 3 p.m. readings	Wind (Height of anemometer 75 feet)					Mean amount of evaporation (inches)	No. of days of lightning	Mean amount of clouds, 9 a.m. to 3 p.m. 9 p.m. (a)	No. of clear days	
		Average miles per hour	Highest mean speed in one day (miles per hour)	Highest gust speed (miles per hour)	Prevailing direction						
					9 a.m.	3 p.m.					
No. of years of observations.	30(b)	13(c)	13(c)	48	30(b)	30(b)	30(b)	30(b)	30(b)	30(b)	
January . . .	29.917	7.8	18.2	3/55	72	SW	SW	9.27	2.3	3.6	12.9
February . . .	29.953	7.5	17.7	1/64	66	NE	SW	7.56	2.0	3.7	11.2
March . . .	30.037	6.9	19.1	24/64	78	S	SW	6.39	1.8	4.0	10.6
April . . .	30.119	6.9	23.2	10/56	81	NE	SW	3.78	1.5	5.2	7.2
May . . .	30.131	7.0	23.5	19/53	70	NE	NW	2.27	1.3	5.8	4.9
June . . .	30.119	7.4	18.4	12/53	67	NE	N	1.37	1.3	6.1	4.1
July . . .	30.111	7.3	20.4	13/64	60	NE	NW	1.34	1.5	6.0	4.3
August . . .	30.084	7.9	23.7	8/55	75	NE	SW	1.99	2.0	5.5	5.6
September . . .	30.050	8.0	21.0	25/60	69	NNE	SW	3.05	2.0	5.3	5.8
October . . .	30.007	8.4	21.9	6/62	75	NNE	SW	5.03	2.8	5.3	5.7
November . . .	29.990	8.4	20.6	8/52	81	SW	SW	6.89	3.3	4.9	7.2
December . . .	29.922	8.2	17.9	6/52	75	SW	SW	8.74	2.2	4.2	9.5
Year { Totals . . .								57.68	24.0		89.0
Year { Averages . . .	30.037	7.7				NE	SW			5.0	
Year { Extremes . . .			23.7	8/1955	81						

(a) Scale 0-10. (b) Standard thirty years' normal (1911-1940). (c) Records taken from a Munro Anemometer, 1952-1964.

TEMPERATURE AND SUNSHINE

Month	Mean temperature (°Fahr.)			Extreme shade temperature (°Fahr.)		Extreme range	Extreme temperature (°Fahr.)		Mean daily hours of sunshine
	Mean max.	Mean min.	Mean	Highest	Lowest		Highest in sun	Lowest on grass	
No. of years over which observation extends .	30(a)	30(a)	30(a)	108	108	108	54(b)	104	30(a)
January	84.8	61.0	72.9	117.7 12/39	45.1 21/84	72.6	180.0 18/82	36.5 14/79	10.0
February	85.7	61.8	73.7	113.6 12/99	45.5 23/18	68.1	170.5 10/00	35.8 23/26	9.3
March	81.3	59.1	70.2	110.5 9/34	43.9 21/33	66.6	174.0 17/83	32.1 21/33	7.9
April	73.0	54.4	63.7	98.6 5/38	39.6 15/59	59.0	155.0 1/83	28.0 14/63	6.0
May	66.8	50.8	58.8	89.5 4/21	36.9 (c)	52.6	148.2 12/79	25.6 19/28	4.8
June	61.0	46.6	53.8	78.1 4/57	32.5 (d)	45.6	138.8 18/79	21.0 24/44	4.2
July	59.9	45.4	52.7	74.0 11/06	32.0 24/08	42.0	134.5 26/90	22.1 30/29	4.3
August	62.3	46.2	54.3	85.0 31/11	32.3 17/59	52.7	140.0 31/92	22.8 11/29	5.4
September	66.8	48.3	57.5	95.1 30/61	32.7 4/58	62.4	160.5 23/82	25.0 25/27	6.3
October	72.5	51.7	62.1	102.9 21/22	36.1 20/58	66.8	162.0 30/21	27.8 (e)	7.3
November	78.1	55.4	66.7	113.5 21/65	40.8 2/09	72.7	166.9 20/78	31.5 2/09	8.6
December	82.6	58.9	70.7	114.6 29/31	43.0 (f)	71.6	175.7 7/99	32.5 4/84	9.5
Year { Averages	72.9	53.3	63.1	117.7 12/1/39	32.0 24/7/08	85.7	180.0 18/1/1882	21.0 24/6/44	7.0
Year { Extremes	..	..	..	..	..	..	..	..	..

(a) Standard thirty years' normal (1911-1940). (b) Records incomplete, 1931-1934. Discontinued, 1934. (c) 26/1895 and 24/1904. (d) 27/1876 and 24/1944. (e) 4/1931 and 2/1918. (f) 4/1906 and 16/1861.

HUMIDITY, RAINFALL AND FOG

Month	Vapour pressure (inches)	Rel. hum. (%) at 9 a.m.			Rainfall (inches)					Fog
		Mean	Highest mean	Lowest mean	Mean monthly	Mean No of days of rain	Greatest monthly	Least monthly	Greatest in one day	Mean No of days of fog
No. of years over which observation extends.	30(a)	30(a)	97	97	30(a)	30(a)	126	126	126	30(a)
January	0.327	39	59	29	0.76	5	3.31 1941	Nil (b)	2.30 2/89	0.0
February	0.352	41	57	30	1.10	5	6.09 1925	Nil (b)	5.57 7/25	0.0
March	0.332	44	58	29	0.87	5	4.59 1878	Nil (b)	3.50 5/78	0.0
April	0.329	55	72	37	1.45	10	5.81 1938	Nil 1945	3.15 5/60	0.0
May	0.313	64	76	49	2.49	13	7.75 1875	0.10 1934	2.75 1/53	0.6
June	0.294	75	84	63	2.93	15	8.58 1916	0.23 1958	2.11 1/20	1.1
July	0.282	75	87	66	2.49	16	5.44 1890	0.39 1899	1.75 10/65	1.4
August	0.282	68	78	54	2.58	16	6.20 1852	0.33 1944	2.23 1/21	0.4
September	0.289	59	72	44	2.39	13	5.83 1923	0.27 1951	1.59 20/23	0.2
October	0.287	48	67	29	1.54	10	5.24 1949	0.17 1/14	2.24 16/08	0.0
November	0.292	41	58	31	1.22	8	4.45 1839	0.08 1922	2.96 12/60	0.0
December	0.322	40	56	31	1.27	6	3.98 1861	Nil 1904	2.42 23/13	0.0
Totals					21.09	122				3.7
Year Averages	0.308	54					8.58 6/1916	Nil (c)	5.57 7/2/25	
Extremes			87	29						

(a) Standard thirty years' normal (1911-1940). (b) Various years. (c) December to April, various years. Dates in italics relate to nineteenth century.

CLIMATOLOGICAL DATA: BRISBANE, QUEENSLAND

(Lat. 27° 28' S., Long. 153° 2' E. Height above M.S.L. 134 ft.)

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS AND CLEAR DAYS

Month	Bar. corrected to 32° F., m.m. sea level and standard gravity, and from 9 a.m. and 3 p.m. readings	Wind (Height of anemometer 105 feet)				Prevailing direction		Mean amount of evaporation (inches)	No. of days of lightning	Mean amount of clouds, 9 a.m. to 3 p.m. (p.m.(a))	No. of clear days
		Average miles per hour	Highest mean speed in one day (miles per hour)	Highest gust speed (miles per hour)							
					9 a.m.	3 p.m.					
No. of years of observations.	30(b)	30(b)	50	50	30(b)	30(b)	30(b)	30(b)	30(b)	30(b)	
January . . .	29.865	6.8	19.7 23/47	58	SE	NE	6.74	9.8	5.7	3.5	
February. . .	29.912	7.0	23.2 21/54	67	SE	NE	5.49	6.5	5.6	2.4	
March . . .	29.975	6.5	20.3 1/29	66	S	E	5.05	5.9	5.1	5.4	
April . . .	30.035	5.9	16.7 3/25	64	S	E	4.05	5.0	4.3	7.8	
May . . .	30.083	5.8	17.9 17/26	49	SW	SE	3.09	4.1	4.3	8.3	
June . . .	30.091	5.7	19.0 14/28	59	SW	W & SW	2.45	2.9	4.4	9.2	
July . . .	30.090	5.6	22.0 13/54	67	SW	W & SW	2.69	2.8	3.8	12.4	
August . . .	30.105	5.8	14.8 4/35	62	SW	NE	3.51	3.8	3.1	13.1	
September . .	30.067	5.9	16.1 1/48	63	SW	NE	4.51	5.8	3.3	13.0	
October . . .	30.019	6.3	15.7 1/41	62	S	NE	5.81	7.1	4.2	8.5	
November . .	29.958	6.7	15.5 10/28	69	SE & N	NE	6.32	9.5	4.9	5.9	
December . .	29.890	7.0	19.5 15/26	79	SE	NE	7.02	10.6	5.3	3.8	
Year { Totals . .							56.73	73.8		93.3	
Year { Averages .	30.007	6.3			SW	NE			4.5		
Year { Extremes .			23.2 21/2/54	79							

(a) Scale 0-10. (b) Standard thirty years' normal (1911-1940).

TEMPERATURE AND SUNSHINE

Month	Mean temperature (°Fahr.)			Extreme shade temperature (°Fahr.)		Extreme range	Extreme temperature (°Fahr.)		Mean daily hours of sunshine				
	Mean max.	Mean min.	Mean	Highest	Lowest		Highest in sun	Lowest on grass					
No. of years over which observation extends .	30(a)	30(a)	30(a)	78	78	78	50(b)	78	30(a)				
January	85.5	69.1	77.3	109.8	26/40	58.8	4/93	51.0	169.0	2/37	49.9	4/93	7.6
February	84.6	68.7	76.6	105.7	21.25	58.5	23/31	47.2	165.2	6/10	49.1	22/31	7.4
March	82.3	66.2	74.3	99.4	5/19	52.4	29.13	47.0	162.5	6/39	45.4	29.13	7.0
April	79.1	61.5	70.3	95.2	(c)	44.4	25.25	50.8	153.8	11/16	36.7	24.25	7.1
May	73.7	55.6	64.7	90.3	21/23	40.6	30.51	49.7	147.0	1/10	29.8	8/97	6.6
June	69.4	51.5	60.5	88.9	19/18	36.3	29/08	52.6	136.0	3/18	25.4	23/88	6.3
July	68.6	49.4	59.0	84.3	23/46	36.1	(d)	48.2	146.1	20/15	23.9	11/90	6.8
August	71.1	50.0	60.6	91.0	14/46	36.9	13/64	54.1	141.9	20/17	27.1	9/99	7.9
September	75.5	54.8	65.1	100.9	22/43	40.7	1/96	60.2	155.5	26/03	30.4	1/89	8.2
October	79.2	60.3	69.8	105.3	30.58	43.3	3/99	62.0	157.4	31/18	34.9	8/89	8.4
November	82.3	64.6	73.4	106.1	18/13	48.5	2/05	57.6	162.3	7/39	38.8	1/05	8.2
December	84.5	67.5	76.0	105.9	26/93	56.3	5/55	49.6	165.9	28/42	49.1	3/94	8.2
Year { Averages	78.0	59.9	69.0										7.5
Year { Extremes				109.8	26/1/40	36.1	(d)	73.7	169.0	2/1/37	23.9	11/7/1890	

(a) Standard thirty years' normal (1911-1940). (b) From 1887 to March 1947, excluding 1927-1936. (c) 9/1896 and 5/1903. (d) 12/7/1894 and 2/7/1896.

HUMIDITY, RAINFALL AND FOG

Month	Vapour pressure (inches)	Rel. hum. (%) at 9 a.m.			Rainfall (inches)					Fog			
		Mean 9 a.m.	Mean	Highest mean	Lowest mean	Mean monthly	Mean No of days of rain	Greatest monthly	Least monthly	Greatest in one day	Mean No of days of fog		
No. of years over which observation extends.	30(a)	30(a)	78	78	30(a)	30(a)	113(b)	113(b)	113(b)	30(a)			
January	0.636	66	77	55	5.72	12	27.72	1895	0.32	1919	18.31	21/87	0.6
February	0.644	69	82	55	5.47	12	40.39	1893	0.58	1849	10.61	6/31	0.9
March	0.606	72	85	56	4.97	14	34.04	1870	Nil	184	11.18	14/08	1.6
April	0.512	71	80	56	3.68	11	15.28	1867	0.04	194	5.46	5/33	4.0
May	0.420	71	85	59	12.35	9	13.85	1876	Nil	1846	5.62	9/79	5.4
June	0.357	73	84	54	1.75	8	14.03	1873	Nil	1847	6.41	15/48	4.5
July	0.331	71	88	53	1.88	8	8.60	1950	Nil	1841	3.54	(c)	4.9
August	0.338	67	80	53	1.07	7	14.67	1879	Nil	(d)	4.89	12/87	5.9
September	0.396	62	76	47	1.69	7	5.43	1886	0.10	1907	2.46	2/94	2.8
October	0.459	59	72	48	2.27	8	11.41	1949	0.03	1948	5.34	25/49	1.6
November	0.533	61	73	48	4.00	10	12.40	1917	Nil	1842	4.46	16/86	0.7
December	0.589	62	70	51	4.24	11	17.36	1942	0.35	1865	6.60	28/71	0.4
Year { Totals					40.09	117							33.3
Year { Averages	0.485	67					40.39	2/1893	Nil	(e)	18.31		
Year { Extremes			88	45							21/1/1887		

(a) Standard thirty years' normal (1911-1940). (b) Records incomplete for various years between 1846 and 1859. (c) 15/1876 and 16/1889. (d) 1862, 1869 and 1880. (e) Various months in various years.

Dates in italics relate to nineteenth century.

CLIMATOLOGICAL DATA: SYDNEY, NEW SOUTH WALES

(Lat. 33° 52' S., Long. 151° 12' E. Height above M.S.L. 138 ft.)

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS AND CLEAR DAYS

Month	Bar. corrected to 32° F., mn. sea level and standard gravity from 9 a.m. and 3 p.m. readings	Wind (Height of anemometer 58 feet)					Mean amount of evaporation (inches)	No. of days of lightning	Mean amount of clouds, 9 a.m., 3 p.m., 9 p.m.(a)	No. of clear days	
		Average miles per hour	Highest mean speed in one day (miles per hour)	Highest gust speed (miles per hour)	Prevailing direction						
					9 a.m.	3 p.m.					
No. of years of observations.	30(b)	26(c)	51	48	26(c)	26(c)	26(c)	30(d)	30(b)	30(b)	
January	29.875	8.9	24.9	2/22	93	S	ENE	5.71	4.8	5.7	4.8
February	29.942	8.1	20.1	14/18	63	NE	ENE	4.68	3.3	5.5	5.4
March	30.009	7.5	20.7	10/44	58	W	ENE	4.05	2.8	5.3	5.8
April	30.063	7.0	23.4	19/27	72	W	NE	2.91	2.4	5.0	7.0
May	30.098	6.8	21.1	18/55	63	W	S	2.17	1.6	4.9	7.4
June	30.078	7.1	22.4	10/47	84	W	W	1.61	1.5	4.8	8.3
July	30.070	7.2	26.6	6/31	68	W	W	1.69	1.1	4.5	10.1
August	30.060	7.4	24.6	9/51	68	W	NE	2.30	2.1	3.9	11.1
September	30.018	8.0	22.3	19/17	70	W	NE	3.00	3.0	4.2	10.0
October	29.976	8.2	24.5	1/57	95	W	ENE	4.17	3.9	4.9	7.4
November	29.935	8.5	22.5	14/30	71	W & E	ENE	4.97	4.5	5.5	5.7
December	29.881	8.9	25.0	10/20	75	S	ENE	5.64	5.4	5.8	4.8
Year { Totals	30.000	7.8	..	..	..	..	..	42.90	36.4	..	87.8
Year { Averages . . . . .	..	..	..	..	..	W	NE	..	..	5.0	..
Year { Extremes . . . . .	..	..	26.6	6/7/31	95	..	..	..	..	..	..

(a) Scale 0-10.

(b) Standard thirty years' normal (1911-1940).

(c) 1915-1940.

(d) 1921-1950.

TEMPERATURE AND SUNSHINE

Month	Mean temperature (°Fahr.)			Extreme shade temperature (°Fahr.)		Extreme range	Extreme temperature (°Fahr.)		Mean daily hours of sunshine				
	Mean max.	Mean min.	Mean	Highest	Lowest		Highest in sun	Lowest on grass					
No. of years over which observation extends .	30(a)	30(a)	30(a)	106	106	106	84(b)	106	30(c)				
January	78.6	65.1	71.8	113. 6	14/39	51. 1	18/49	62.5	164. 3	26/15	43. 7	6/25	7. 5
February	78.7	65.5	72.1	107. 8	8/26	49. 3	28/63	58.5	168. 3	14/39	42. 8	22/33	7. 0
March	76.6	62.9	69.8	102. 6	3/69	48. 8	14/86	53.8	158. 3	10/26	39. 9	17/13	6. 4
April	72.0	57.7	64.9	91. 4	1/36	44. 6	27/64	46.8	144. 1	10/77	33. 3	24/09	6. 1
May	67.0	52.4	59.7	86. 0	1/19	40. 2	22/59	45.8	129. 7	1/96	29. 3	25/17	5. 7
June	62.8	48.1	55.5	80. 4	11/31	35. 7	22/32	44.7	125. 5	2/23	28. 0	22/32	5. 3
July	61.8	46.4	54.1	78. 3	22/26	35. 9	12/90	42.4	124. 7	19/77	24. 0	4/93	6. 1
August	64.3	47.6	56.0	86. 8	24/54	36. 8	3/72	50.0	149. 0	30/78	26. 1	4/09	7. 0
September	68.3	51.4	59.9	92. 3	27/19	40. 8	2/45	51.5	142. 2	12/78	30. 1	17/05	7. 3
October	71.7	55.9	63.8	99. 4	4/42	42. 2	6/27	57.2	152. 2	20/33	32. 7	9/05	7. 5
November	74.5	59.8	67.1	104. 5	6/46	45. 8	1/05	58.7	158. 5	28/99	36. 0	6/06	7. 5
December	76.9	63.2	70.1	108. 0	20/57	48. 4	3/24	59.6	164. 5	27/89	41. 4	3/24	7. 5
Year { Averages	71.1	56.3	63.7	113. 6	14/1/39	35. 7	22/6/32	77.9	168. 3	14/2/39	24. 0	4/7/1893	6. 7
Year { Extremes . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..

(a) Standard thirty years' normal (1911-1940).

(b) Records discontinued 1946.

(c) 1921-1950 (different exposure prior to 1921).

HUMIDITY, RAINFALL AND FOG

Month	Vapour pressure (inches)	Rel. hum. (%) at 9 a.m.			Rainfall (inches)						Fog				
		Mean	Highest mean	Lowest mean	Mean monthly	Mean No of days of rain	Greatest monthly	Least monthly	Greatest in one day	Mean No of days of fog					
											Mean 9 a.m.				
No. of years over which observation extends.	30(a)	30(a)	89	89	30(a)	30(a)	106	106	106	44					
January	0.537	65	78	58	3.86	13	15.26	1911	0.25	1932	7.08	13/11	0.3		
February	0.560	68	81	60	3.15	12	22.22	1956	0.12	1939	8.90	25/73	0.7		
March	0.527	71	85	62	4.44	13	20.52	1942	0.42	1876	11.05	28/42	1.7		
April	0.441	73	87	63	5.65	14	24.49	1861	0.06	1868	7.52	29/60	2.4		
May	0.362	75	90	63	4.98	12	23.03	1919	0.14	1957	8.36	28/89	3.5		
June	0.303	76	89	63	3.68	11	25.30	1950	0.16	1962	5.17	16/84	2.8		
July	0.282	74	88	63	4.89	12	13.23	1950	0.10	1946	7.80	7/31	2.4		
August	0.288	68	84	54	2.41	10	14.89	1899	0.04	1885	5.33	2/60	2.0		
September	0.325	62	79	49	2.77	11	14.05	1879	0.08	1882	5.69	10/79	1.0		
October	0.378	60	77	46	2.80	11	11.13	(b)	0.21	1867	6.37	13/02	0.5		
November	0.433	60	79	42	2.54	11	20.36	1961	0.07	1915	5.24	27/55	0.5		
December	0.501	63	77	51	3.63	13	15.82	1920	0.23	1913	4.75	13/10	0.4		
Year { Totals . . . . .	..	..	..	..	44.80	143	..	..	..	..	..	..	18.2
Year { Averages	0.411	68	..	..	..	..	..	..	..	..	..	..	..
Year { Extremes	90	42	25	30	6/1950	0	04	8/1885	11.05	28.3/42	..

(a) Standard thirty years' normal (1911-1940).

(b) 1916 and 1959.

Dates in italics relate to nineteenth century.

CLIMATOLOGICAL DATA: CANBERRA, AUSTRALIAN CAPITAL TERRITORY

(Lat. 35° 18' S., Long. 149° 6' E. Height above M.S.L., 1,906 ft.)

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS AND CLEAR DAYS

Month	Bar. corrected to 32° F., min. sea level and standard gravity from 9 a.m. and 3 p.m. readings	Wind (Height of anemometer 20 feet)					Mean amount of evaporation (inches)	No. of days of lightning	Mean amount of clouds, 9 a.m. and 3 p.m. (a)	No. of clear days
		Average miles per hour	Highest mean speed in one day (miles per hour)	High-est gust speed (miles per hour)	Prevailing direction					
					9 a.m.	3 p.m.				
No. of years of observations.	26	27	35	26(b)	27	27	28	20	26	27
January .	29.856	4.7	14.9 23/33	65	NW	NW	8.31	1.5	4.9	7.3
February .	29.900	4.2	15.3 24/33	64	E	NW	6.42	2.3	5.1	6.3
March .	30.009	3.7	18.2 28/42	52	E	NW	5.20	0.2	5.1	6.9
April .	30.059	3.6	18.6 8/45	52	NW	NW	3.28	0.3	5.4	4.7
May .	30.126	3.0	13.2 27/58	64	NW	NW	1.95	0.2	5.6	5.8
June .	30.120	3.6	16.1 2/30	60	NW	NW	1.29	0.1	6.0	4.5
July .	30.133	3.4	23.4 7/31	62	NW	NW	1.27	0.0	5.7	5.6
August .	30.065	4.1	15.7 25/36	59	NW	NW	1.81	0.1	5.4	5.7
September .	30.057	4.2	17.4 28/34	61	NW	NW	2.87	0.4	5.1	6.1
October .	29.954	4.3	14.7 12/57	74	NW	NW	4.43	1.0	5.4	5.2
November .	29.885	4.7	17.2 28/42	66	NW	NW	5.87	1.1	5.5	4.5
December .	29.834	4.7	16.1 11/38	66	NW	NW	7.64	0.7	5.0	6.3
(Totals .							50.34	7.9		68.9
Year Averages	30.000	4.0			NW	NW			5.3	
Extremes			23.4 7/7/31	74						

(a) Scale 0-10. (b) At aerodrome.

TEMPERATURE AND SUNSHINE

Month	Mean temperature (°Fahr.)			Extreme shade temperature (°Fahr.)		Extreme range	Extreme temperature (°Fahr.)		Mean daily hours of sunshine (c)
	Mean max.	Mean min.	Mean	Highest	Lowest		Highest in sun	Lowest on grass	
No. of years over which observation extends .	30(a)	30(a)	30(a)	37	37	37	(b)	37	25
January	82.5	55.9	69.3	107.4	11/39	38.0	1/56	69.4	8.9
February	80.7	56.1	68.4	99.8	13/33	35.0	(d)	64.8	8.2
March	76.2	52.6	64.4	99.1	6/38	34.8	31/49	64.3	7.4
April	66.8	45.4	56.1	89.7	6/38	29.0	29/34	60.7	6.9
May	59.3	38.9	49.1	72.6	1/36	22.5	(e)	50.1	5.5
June	52.8	35.7	44.3	64.9	1/54	18.1	20/35	43.9	4.5
July	51.8	33.7	42.7	63.5	16/34	20.0	(g)	43.5	5.0
August	55.1	35.4	45.3	71.0	24/54	21.0	3/29	50.0	6.0
September	61.4	38.9	50.1	81.5	16/34	25.2	6/46	56.3	7.6
October	67.1	44.2	55.6	90.0	13/46	28.0	26/61	62.0	8.0
November	73.0	48.7	60.9	101.4	19/44	32.2	11/36	69.2	9.0
December	79.6	53.4	66.5	103.5	27/38	36.0	24/28	67.5	9.1
Year { Averages	67.2	44.9	56.1	107.4	11/1/39	18.1	20/6/35	89.3	7.2
Extremes									

(a) Thirty year period 1928-1957. (b) No record. (c) 1911-1920 at Westridge, 1934-1936 at Acton, subsequently at Forestry School. (d) 22/1931 and 23/1931. (e) 9/1929 and 15/1957. (f) 13/1937 and 15/1946. (g) 19/1929, 9/1937 and 27/1943.

HUMIDITY, RAINFALL AND FOG

Month	Vapour pressure (inches)	Rel. hum. (%) at 9 a.m.			Rainfall (inches)						Fog
		Mean	Highest mean	Lowest mean	Mean monthly	Mean No of days of rain	Greatest monthly	Least monthly	Greatest in one day	Mean No of days of fog	
No. of years over which observation extends.	26	28	28	28	30(a)	30(a)	37	37	37	25	
January	0.370	53	69	39	2.09	7	6.69 1941	0.02 1932	3.22 30/58	0.1	
February	0.388	59	71	40	2.15	7	6.03 1948	0.01 1933	3.24 17/28	0.2	
March	0.378	66	82	48	2.43	7	12.69 1950	0.01 1940	2.72 1/61	1.0	
April	0.315	71	81	54	2.12	8	5.19 1952	0.07 1942	2.52 9/45	1.4	
May	0.254	79	89	67	2.00	7	6.13 1948	0.06 1935	3.88 3/48	4.8	
June	0.212	81	90	72	1.89	9	6.09 1931	0.18 1944	2.32 25/56	5.8	
July	0.196	81	91	73	1.63	10	5.08 1960	0.27 1940	2.02 13/33	5.3	
August	0.213	75	88	69	1.98	11	4.71 1939	0.36 (b)	2.07 12/29	2.4	
September	0.239	66	78	51	1.58	9	4.52 1960	0.13 1946	1.78 16/62	1.4	
October	0.273	60	72	40	2.70	11	6.98 1959	0.34 1940	5.19 21/59	0.4	
November	0.301	55	67	38	2.08	9	5.98 1961	0.28 1936	2.45 9/50	0.1	
December	0.338	51	70	37	1.88	8	8.80 1947	0.16 1938	2.29 28/29	0.0	
Totals					24.53	103				22.9	
Year Averages	0.290	66					12.69 3/50	0.01 2 33,3/40	5.19 21 10/59		
Extremes			91	37							

(a) Thirty year period 1928-1957. (b) 1944 and 1949.

All dates relate to twentieth century. Except where indicated records are those for the Forestry School.

CLIMATOLOGICAL DATA: MELBOURNE, VICTORIA
(Lat. 37° 49' S., Long. 144° 58' E. Height above M.S.L., 114 ft.)

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS AND CLEAR DAYS

Month	Bar. corrected to 32° F., m.m. sea level and standard gravity from 9 a.m. and 3 p.m. readings	Wind (Height of anemometer 93 feet)					Mean amount of evaporation (inches)	No. of days of lightning	Mean amount of clouds, 9 a.m., 3 p.m., 9 p.m.(a)	No. of clear days
		Average miles per hour	Highest mean speed in one day (miles per hour)	Highest gust speed (miles per hour)	Prevailing direction					
					9 a.m.	3 p.m.				
No. of years of observations.	30(b)	15(c)	52	55	30(b)	30(b)	30(b)	30(b)	30(b)	30(b)
January	29.897	8.8	21.1 27/41	66	S & SW	S	6.55	1.8	4.9	6.8
February	29.950	8.4	19.0 13/47	74	N & S	S	5.10	2.3	4.8	6.4
March	30.025	7.8	18.0 3/61	66	N	S	4.26	1.8	5.3	5.5
April	30.092	7.1	19.9 16/43	67	N	S	2.53	1.2	5.9	4.6
May	30.113	7.4	20.5 4/61	72	N	N	1.57	0.5	6.1	3.4
June	30.097	7.2	22.8 16/47	64	N	N	1.18	0.4	6.5	2.7
July	30.079	8.7	22.7 22/60	68	N	N	1.16	0.3	6.3	2.9
August	30.048	8.2	21.3 20/42	65	N	N	1.54	0.9	6.0	3.1
September	30.001	8.5	21.1 15/64	69	N & W	N & S	2.41	1.3	5.9	3.3
October	29.968	8.4	18.6 12/52	69	N	S	3.54	1.8	6.1	3.8
November	29.951	8.6	21.2 13/58	71	S & SW	S	4.62	2.3	6.0	3.6
December	29.896	8.7	21.0 11/52	61	S & SW	S	5.85	1.9	5.6	4.5
Year { Totals	30.010	8.1	..	..	N	S	40.31	16.5	..	50.6
Averages . . . . .	..	..	..	..	..	..	..	..	..	..
Extremes . . . . .	..	..	22.8 16/6/47	74	..	..	..	..	..	..

(a) Scale 0-10.

(b) Standard thirty years' normal (1911-1940).

(c) Early records not comparable.

TEMPERATURE AND SUNSHINE

Month	Mean temperature (°Fahr.)			Extreme shade temperature (°Fahr.)		Extreme range	Extreme temperature (°Fahr.)		Mean daily hours of sunshine
	Mean max.	Mean min.	Mean	Highest	Lowest		Highest in sun	Lowest on grass	
No. of years over which observation extends .	30(a)	30(a)	30(a)	109	109	109	86(b)	105	49(c)
January	77.7	56.9	67.3	114.1 13/39	42.0 28/85	72.1	178.5 14/62	30.2 28/85	8.1
February	78.6	58.0	68.3	109.5 7/01	40.2 24/24	69.3	167.5 15/70	30.9 6/91	7.5
March	74.9	55.2	65.1	107.0 11/40	37.1 17/84	69.9	164.5 1/68	28.9 (d)	6.6
April	67.9	50.8	59.3	94.8 5/38	34.8 24/88	60.0	152.0 8/61	25.0 23/97	5.0
May	62.0	46.9	54.5	83.7 7/05	29.9 29/16	53.8	142.6 2/59	21.1 26/16	3.9
June	56.8	43.8	50.3	72.3 2/57	28.0 11/66	44.3	129.0 11/61	19.9 30/29	3.3
July	56.2	42.6	49.4	69.3 22/26	27.0 21/69	42.3	125.8 27/80	20.5 12/03	3.7
August	58.7	43.7	51.2	77.0 20/85	28.3 11/63	48.7	137.4 29/69	21.3 14/02	4.6
September	63.3	46.0	54.7	88.6 28/28	31.0 3/40	57.6	142.1 20/67	22.8 8/18	5.5
October	67.9	48.7	58.3	98.4 24/14	32.1 3/71	66.3	154.3 28/68	24.8 22/18	5.9
November	71.3	51.8	61.5	105.7 27/94	36.5 2/96	69.2	159.6 29/65	24.6 2/96	6.4
December	75.4	55.3	65.3	110.7 15/76	40.0 4/70	70.7	170.3 20/69	33.2 1/04	7.3
Year { Averages	67.6	50.0	58.8	..	..	..	..	..	5.7
Extremes . . . . .	..	..	..	114.1 13/1/39	27.0 21/7/1869	87.1	178.5 14/1/1862	19.9 30/6/29	..

(a) Standard thirty years' normal (1911-1940).

(b) Records discontinued, 1946.

(c) 1916-1964.

(d) 17/1884 and 20/1897.

HUMIDITY, RAINFALL AND FOG

Month	Vapour pressure (inches)	Rel. hum. (%) at 9 a.m.			Rainfall (inches)						Fog
		Mean	Highest mean	Lowest mean	Mean monthly	Mean No of days of rain	Greatest monthly	Least monthly	Greatest in one day	Mean No of days of fog	
											Mean 9 a.m.
No. of years over which observation extends.	30(a)	30(a)	57	57	30(a)	30(a)	109	109	109	30(a)	
January	0.382	58	68	50	1.88	9	6.92 1963	0.01 1932	4.25 29/63	0.1	
February	0.417	62	77	48	2.00	8	7.72 1939	0.03 1870	3.44 26/46	0.3	
March	0.385	64	79	50	2.22	9	7.50 1911	0.14 1934	3.55 5/19	1.1	
April	0.351	72	82	66	2.30	13	7.67 1960	Nil 1923	3.15 23/60	2.3	
May	0.311	79	88	70	1.94	14	5.60 1942	0.14 1934	1.85 7/91	6.8	
June	0.276	83	92	73	2.06	16	4.51 1859	0.61 1958	1.74 21/04	6.5	
July	0.264	82	86	75	1.93	17	7.02 1891	0.57 1902	2.71 12/91	6.5	
August	0.271	76	82	65	2.02	17	4.35 1939	0.48 1903	1.94 26/24	3.7	
September	0.288	68	76	60	2.20	15	7.93 1916	0.52 1907	2.62 12/80	1.3	
October	0.307	62	71	52	2.63	14	7.61 1869	0.29 1914	3.00 17/69	0.3	
November	0.336	60	69	52	2.33	13	8.11 1954	0.25 1895	2.86 21/54	0.3	
December	0.373	59	69	48	2.38	11	7.18 1863	0.11 1904	3.92 4/84	0.2	
Year { Totals . . . . .	..	..	..	..	25.89	156	..	..	..	29.4
Averages	0.330	69	..	..	..	..	..	..	..	..
Extremes . . . . .	..	..	92	48	..	..	8.11 11/1954	Nil 4/1923	4.25 29/1/63	..

(a) Standard thirty years' normal (1911-1940).

Dates in italics relate to nineteenth century.

CLIMATOLOGICAL DATA: HOBART, TASMANIA

(Lat. 42° 53' S., Long. 147° 20' E. Height above M.S.L. 177 ft.)

BAROMETER, WIND, EVAPORATION, LIGHTNING, CLOUDS AND CLEAR DAYS

Month	Bar. corrected to 32° F. mn. sea level and standard gravity from 9 a.m. and 3 p.m. readings	Wind (Height of anemometer 40 feet)					Mean amount of evaporation (inches)	No. of days of lightning	Mean amount of clouds, 9 a.m., 3 p.m., 9 p.m.(a)	No. of clear days
		Average miles per hour	Highest mean speed in one day (miles per hour)	High-est gust speed (miles per hour)	Prevailing direction					
					9 a.m.	3 p.m.				
No. of years of observations.	30(b)	30(b)	72	74	30(b)	30(b)	30(b)	30(b)	30(b)	30(b)
January	29.819	8.0	20.8 30/16	71	NNW	SSE	4.84	0.9	6.4	1.9
February	29.913	7.2	25.2 4/27	69	NNW	SSE	3.71	1.0	6.2	2.3
March	29.961	6.8	21.4 13/38	79	NW	SSE	3.10	1.2	6.1	2.4
April	29.997	6.7	24.1 9/52	74	NW	W	1.98	0.7	6.5	1.7
May	30.009	6.3	20.2 20/36	84	NNW	NW	1.37	0.4	6.1	2.4
June	29.986	6.2	23.7 27/20	75	NW	NW	0.91	0.4	6.2	2.4
July	29.958	6.5	22.9 22/53	80	NNW	NNW	0.94	0.3	6.1	2.0
August	29.906	6.8	25.5 19/26	87	NNW	NW	1.28	0.4	6.1	2.1
September	29.860	7.9	21.5 26/15	80	NNW	NW	1.97	0.7	6.3	1.5
October	29.833	8.2	19.2 8/12	74	NNW	SW	3.05	0.6	6.6	1.0
November	29.831	7.9	21.2 18/15	84	NNW	S	3.77	0.7	6.4	1.3
December	29.816	7.6	23.4 1/34	81	NNW	SSE	4.37	0.5	6.8	1.1
Year { Totals . . . . .	..	..	..	..	..	..	31.29	7.8	..	22.1
Averages	29.907	7.2	..	..	NNW	W	..	..	6.3	..
Extremes . . . . .	..	..	25.5 19/8/26	87	..	..	..	..	..	..

(a) Scale 0-10. (b) Standard thirty years' normal (1911-1940).

TEMPERATURE AND SUNSHINE

Month	Mean temperature (°Fahr.)			Extreme shade temperature (°Fahr.)		Extreme range	Extreme temperature (°Fahr.)		Mean daily hours of sunshine
	Mean max.	Mean min.	Mean	Highest	Lowest		Highest in sun	Lowest on grass	
No. of years over which observation extends.	30(a)	30(a)	30(a)	95(b)	95(b)	95(b)	57(c)	77(b)	30(f)
January	69.8	52.4	61.0	105.0 (d)	40.1 (e)	64.9	160.0 (f)	30.6 19/97	7.7
February	70.6	53.7	62.2	104.4 12/99	39.0 20/87	65.4	165.0 24/98	28.3 —/87	7.1
March	67.5	51.3	59.4	99.1 13/40	35.2 31/26	63.9	150.9 26/44	27.5 30/02	6.4
April	62.2	48.0	55.1	87.1 1/41	33.2 14/63	53.9	142.0 18/93	25.0 —/86	5.0
May	57.8	44.6	51.2	77.8 5/21	29.2 20/02	48.6	128.0 (g)	20.0 19/02	4.4
June	52.8	41.2	47.0	69.2 1/07	29.2 28/44	40.0	122.0 12/94	18.1 24/63	4.0
July	52.7	40.6	46.6	66.1 14/34	27.7 11/95	38.4	121.0 12/93	18.7 16/86	4.4
August	55.4	41.7	48.7	71.6 28/14	28.9 9/51	42.7	129.0 —/87	20.1 7/09	5.1
September	59.0	43.7	51.4	81.7 23/26	31.0 16/97	50.7	138.0 23/93	18.3 16/26	5.9
October	62.5	46.1	54.3	92.0 24/14	32.0 12/89	60.0	156.0 9/93	23.8 (h)	6.1
November	65.0	48.2	56.6	98.3 26/37	35.0 16/41	63.3	154.0 19/92	26.0 1/08	7.2
December	67.9	51.3	59.6	105.2 30/97	38.0 3/06	67.2	161.5 10/39	27.2 —/86	7.4
Year { Averages	61.9	46.9	54.4	105.2 ..	27.7 ..	77.5	165.0 ..	18.1 24/6/63	5.9
Extremes . . . . .	..	..	..	30/12/1897	11/7/1895	..	24/2/1898	..	..

(a) Standard thirty years' normal (1911-1940). (b) Records 1855-1882 not comparable. (c) Period 1934-1938 not comparable; records discontinued, 1946. (d) 1/1900 and 19/1959. (e) 9/1937 and 11/1937. (f) 5/1886 and 13/1905. (g) —/1899 and —/1893. (h) 1/1886 and —/1899. (i) 1921-1950.

HUMIDITY, RAINFALL AND FOG

Month	Vapour pressure (inches)	Rel. hum. (%) at 9 a.m.			Rainfall (inches)						Fog
		Mean	Highest	Lowest	Mean monthly	Mean No of days of rain	Greatest monthly	Least monthly	Greatest in one day	Mean No of days of fog	
											Mean 9 a.m.
No. of years over which observation extends.	30(a)	55	71	71	30(a)	30(a)	82(b)	82(b)	82(b)	30(c)	
January	0.309	59	72	46	1 82	13	5.91 1893	0.17 (d)	2.96 30/16	0.0	
February	0.342	63	77	48	1 68	10	5.15 1954	0.11 1914	2.20 1/54	0.0	
March	0.323	67	77	52	2 13	13	10.05 1946	0.29 1943	3.47 17/46	0.3	
April	0.290	72	84	58	2 31	14	9.77 1960	0.07 1904	5.25 23/60	0.2	
May	0.263	78	89	65	1 71	14	8.43 1958	0.14 1913	1.75 2/93	0.9	
June	0.233	80	91	68	2 25	16	9.38 1954	0.28 1886	5.80 7/54	0.8	
July	0.227	80	94	72	2 14	17	6.02 1922	0.17 1950	2.51 18/22	1.0	
August	0.232	76	92	60	1 82	18	6.32 1946	0.30 1892	2.28 14/90	0.4	
September	0.240	67	85	58	1 90	17	7.93 1957	0.38 1951	6.15 15/57	0.1	
October	0.258	63	73	51	2 52	18	7.60 1947	0.39 1914	2.58 4/06	0.0	
November	0.274	60	72	50	2 23	16	7.39 1885	0.33 1921	3.70 30/85	0.1	
December	0.306	58	67	35	2 52	14	7.72 1916	0.17 1931	3.33 5/41	0.0	
Year { Totals					25 03	180	..	..	..	3.8
Year { Averages	0.275	69	94	45			10 05 3/1946	0 07 4/1904	6.15 15/9/57	..	
Year { Extremes										..	

(a) Standard thirty years' normal (1911-1940). (b) Records prior to 1883 not comparable. (c) 1922-1951. (d) 1915 and 1958.

Dates in italics relate to nineteenth century.

Rainfall and temperatures, various cities

Year Book No. 34, page 28, shows rainfall and temperature, and No. 38, page 42, temperature, for various important cities throughout the world and for the Australian capitals.

Climatological data for selected Australian country towns

The following table shows some of the more important climatological data for selected Australian country towns, based on standard thirty years' normals (1911-1940).

CLIMATOLOGICAL DATA FOR SELECTED AUSTRALIAN COUNTRY TOWNS

Town	Rainfall		Temperature				Relative humidity			
	Average annual rainfall	Average number of wet days	Mean maximum, January (°F.)	Mean maximum, July (°F.)	Mean minimum, January (°F.)	Mean minimum, July (°F.)	Average index of mean relative humidity, (a) January	Average index of mean relative humidity, (a) July	Mean 3 p.m., January (%)	Mean 3 p.m., July (%)

WESTERN AUSTRALIA

Albany	39.67	172	73.8	60.9	58.5	46.3	73	76	65	70
Broome	22.87	38	91.3	81.8	79.2	57.0	75	52	67	43
Bunbury	33.22	125	82.1	62.5	59.1	47.1	66	78	57	71
Carnarvon	9.01	35	87.2	71.7	72.1	51.6	64	66	61	57
Esperance	26.73	124	76.6	62.1	59.9	45.4	70	77	63	65
Geraldton	18.58	80	84.5	67.7	66.3	51.7	61	68	60	60
Kalgoorlie	9.46	62	93.2	62.5	64.2	42.9	43	66	27	50
Meekatharra	9.17	36	100.4	67.5	73.1	44.0	31	59	21	44
Narrogin	21.38	108	87.3	57.9	56.3	41.3	..	..	..	..
Port Hedland	11.01	20	94.3	79.3	79.4	55.6	67	49	63	47
Wyndham	25.15	55	95.9	85.0	80.2	66.2	66	38	54	35

NORTHERN TERRITORY

Alice Springs	9.93	31	95.3	66.9	69.8	38.9	33	49	26	32
Tennant Creek	13.85	30	98.5	75.4	75.9	51.1	41	36	27	25

SOUTH AUSTRALIA

Ceduna	10.50	68	81.5	62.6	58.8	43.8	..	..	..	..
Mount Gambier	26.86	192	74.2	56.2	53.5	42.4	65	79	50	69
Oodnadatta	4.44	20	99.0	66.4	72.1	42.7	27	49	17	34
Port Augusta	9.28	62	89.5	62.8	65.3	43.9	50	66	33	52
Port Lincoln	18.24	119	77.4	60.2	58.5	46.4	64	76	53	70
Port Pirie	12.99	78	89.2	61.7	62.6	45.4	51	72	..	..

QUEENSLAND

Atherton	53.99	116	83.8	70.9	65.0	50.0	78	79	..	..
Bundaberg	42.37	84	86.1	71.6	69.7	49.2	74	72	63	55
Cairns	86.35	140	89.7	78.1	74.2	61.0	77	74	69	63
Charleville	17.97	49	97.6	68.3	70.8	40.1	44	61	28	39
Charters Towers	23.26	59	92.9	76.0	71.3	51.6	65	64	46	47
Cloncurry	16.89	35	98.7	76.4	76.5	51.5	40	40	30	27
Ipswich	28.97	76	90.4	70.0	67.8	43.8	65	65	..	..
Longreach	15.54	37	99.6	73.2	73.3	44.3	49	56	29	35
Mackay	63.16	116	86.2	71.0	73.6	53.4	80	77	..	..
Maryborough	45.43	122	87.9	71.5	68.8	47.6	73	74	..	..
Normanton	37.56	56	94.3	84.0	77.0	58.6	70	48	52	34
Rockhampton	37.36	93	90.0	73.7	72.3	51.2	68	65	55	45
Roma	20.43	52	94.4	67.4	68.3	39.3	51	64	32	40
Toowoomba	35.19	105	82.7	61.1	61.2	40.7	73	79	..	..
Townsville	43.06	75	87.3	76.0	76.2	59.8	75	64	69	59

For footnote see next page.

CLIMATOLOGICAL DATA FOR SELECTED AUSTRALIAN COUNTRY TOWNS
—continued

Town	Rainfall		Temperature				Relative humidity			
	Average annual rainfall	Average number of wet days	Mean maximum, January (°F.)	Mean maximum, July (°F.)	Mean minimum, January (°F.)	Mean minimum, July (°F.)	Average index of mean relative humidity, (a) January	Average index of mean relative humidity, (a) July	Mean 3 p.m., January (%)	Mean 3 p.m., July (%)
NEW SOUTH WALES										
Albury	27.66	99	89.9	56.4	59.8	38.2	47	74	29	64
Armidale	28.98	107	80.8	54.0	56.5	33.8	60	61	44	57
Bega	35.92	80	81.2	62.9	57.3	34.5	72	70	..	..
Bourke	11.74	44	98.0	63.8	69.3	40.8	37	64	24	48
Broken Hill	9.20	46	90.5	59.5	64.5	41.2	36	67	24	49
Cooma	18.85	88	78.8	50.4	52.2	30.2	55	67	38	56
Dubbo	20.91	72	92.1	59.7	63.8	37.5	48	74	32	56
Goulburn	24.27	112	81.5	52.4	56.2	35.8	59	74	43	67
Grafton	34.68	105	89.1	70.6	67.2	43.9	..	..	..	..
Katoomba	53.17	126	73.9	48.4	54.6	36.7	61	71	54	68
Leeton	15.76	78	88.9	56.8	63.2	38.9	44	76	..	..
Moree	21.43	56	96.0	64.8	67.4	39.0	..	..	..	..
Newcastle	41.36	132	77.7	61.4	66.6	47.7	74	70	69	61
Orange	31.52	95	83.9	51.6	53.7	31.4	..	..	..	..
Tamworth	24.41	67	91.0	60.4	63.4	36.8	..	..	..	..
Taree	47.48	110	83.9	64.5	62.0	42.7	..	..	..	..
Wagga	21.42	86	89.8	57.1	61.5	37.8	50	77	31	65
Wollongong	44.04	112	78.4	61.7	62.6	47.1	78	71	..	..

VICTORIA

Ballarat	27.38	170	75.7	49.8	50.5	38.4	60	81	41	75
Bendigo	20.27	111	83.0	54.2	56.5	39.4	47	75	30	64
Geelong	21.32	133	76.2	56.5	55.4	42.0	65	81	52	70
Horsham	17.57	104	85.1	56.0	55.2	38.8	50	77	33	67
Mildura	10.37	61	89.8	59.5	61.0	40.5	48	71	..	..
Salé	23.70	128	77.5	56.8	54.4	38.6	65	79	51	68
Seymour	22.17	94	84.7	55.2	54.6	37.4	56	79	..	..
Shepparton	19.94	103	86.3	55.7	58.8	39.3	49	77	32	63
Wangaratta	25.57	104	86.7	55.2	58.5	38.1	41	75	26	66
Warrnambool	25.79	153	69.9	55.6	54.7	43.6	73	83	69	77

TASMANIA

Burnie	38.99	170	67.6	53.7	51.9	41.7	70	82	65	74
Launceston	28.56	149	75.8	53.7	52.1	36.9	60	77	..	..
Zeehan	94.06	246	66.3	51.6	48.0	38.2	73	81	61	74

(a) The average index of mean relative humidity has been derived from the ratio of the average 9 a.m. vapour pressure to the saturation vapour pressure at the average mean temperature of the month. Being thus related to the mean temperature this value of relative humidity is a good approximation to the daily mean.

The table on the next page gives the latitude, longitude, and altitude of the weather recording station at each of the above towns.

LOCATION CO-ORDINATES FOR SELECTED AUSTRALIAN COUNTRY TOWNS

Station	Lat.	Long.	Altitude (ft.)	Station	Lat.	Long.	Altitude (ft.)
Western Australia—				Queensland—continued			
Albany	34° 57'	117° 48'	226	Toowoomba	27° 33'	151° 57'	1,921
Broome	17° 57'	122° 13'	39	Townsville	14° 15'	146° 46'	10
Bunbury	33° 19'	115° 38'	3	New South Wales—			
Carnarvon	24° 53'	113° 39'	12	Albury	36° 06'	146° 54'	600
Esperance	33° 51'	121° 53'	14	Armidale	30° 32'	151° 38'	3,215
Geraldton	28° 48'	114° 42'	92	Bega	36° 40'	149° 50'	50
Kalgoorlie	30° 46'	121° 27'	1,180	Bourke	30° 05'	145° 58'	350
Meekatharra	26° 36'	118° 29'	1,697	Broken Hill	31° 57'	141° 28'	978
Narrogin	32° 54'	117° 09'	1,150	Cooma	36° 13'	149° 08'	2,749
Port Hedland	20° 23'	118° 37'	20	Dubbo	32° 10'	148° 37'	861
Wyndham	15° 31'	128° 09'	20	Goulburn	34° 45'	149° 43'	2,074
Northern Territory—				Grafton	29° 41'	152° 56'	21
Alice Springs	23° 48'	133° 53'	1,790	Katoomba	33° 43'	150° 19'	3,280
Tennant Creek	19° 38'	134° 11'	1,229	Leeton	34° 33'	146° 24'	496
South Australia—				Moree	29° 28'	149° 51'	680
Ceduna	32° 08'	133° 42'	57	Newcastle	32° 55'	151° 49'	122
Mount Gambier	37° 45'	140° 47'	206	Orange	33° 18'	149° 06'	2,850
Oodnadatta	27° 33'	135° 29'	371	Tamworth	31° 05'	150° 56'	1,279
Port Augusta	32° 33'	137° 47'	14	Taree	31° 54'	152° 28'	30
Port Lincoln	34° 47'	135° 53'	13	Wagga	35° 08'	147° 25'	719
Port Pirie	33° 11'	138° 01'	10	Wollongong	34° 25'	150° 56'	150
Queensland—				Victoria—			
Atherton	17° 17'	145° 27'	2,466	Ballarat	37° 35'	143° 50'	1,433
Bundaberg	24° 52'	152° 21'	6	Bendigo	36° 46'	144° 17'	730
Cairns	16° 35'	145° 44'	10	Geelong	38° 07'	144° 22'	57
Charleville	26° 25'	146° 17'	950	Horsham	36° 40'	142° 12'	437
Charters Towers	20° 03'	146° 08'	1,004	Mildura	34° 14'	142° 05'	156
Cloncurry	20° 40'	140° 30'	621	Sale	38° 06'	147° 08'	15
Ipswich	27° 38'	152° 44'	64	Seymour	37° 02'	145° 08'	464
Longreach	23° 26'	144° 15'	612	Shepparton	36° 23'	145° 24'	372
Mackay	21° 07'	149° 10'	9	Wangaratta	36° 22'	146° 19'	493
Maryborough	25° 32'	152° 42'	20	Warrnambool	38° 24'	142° 29'	33
Normanton	17° 39'	141° 05'	34	Tasmania—			
Rockhampton	23° 23'	150° 29'	26	Burnie	41° 04'	145° 54'	13
Roma	26° 36'	148° 42'	1,000	Launceston	41° 33'	147° 13'	546
				Zeehan	41° 54'	145° 23'	592

The weather of 1965 (December 1964 to November 1965)

The following is a brief summary of weather experienced during the four seasons ended in November 1965. Plate 3 showing the rainfall distribution for 1965 is to be found between pages 32 and 33.

In the summer of 1964-65 the trend of pressure distributions in the Australian continental region was mostly normal, but there were some abnormalities in the Tasman-New Zealand area and southward to Macquarie Island. The outstanding meteorological feature of 1964-65 summer was the very low rainfall over most of the continent, particularly in the northern and western parts. Rainfall generally was less than 80 per cent of the normal, while many areas in the north received less than 50 per cent of the normal. Temperatures were about normal, or slightly above normal, for the season, but were mostly below normal in the southern parts during December. There was no great incidence of bush fires, but the fire hazard remained high. The frequency of tropical cyclone developments was slightly below normal and the tracks of these systems did not favour the incidence of widespread general rains over the north. The outstanding feature of the pastoral and agricultural situation was that the wheat crop for 1964-65 was harvested under excellent weather conditions. The outlook for stock in the tropical pastoral areas was becoming serious and drought conditions became widespread. In the southern areas the pastoral and agricultural season was mostly good, although rain was needed in some areas to replenish pastures.

In autumn, rainfall in Western Australia was above normal in the extreme north and parts of the north-west and south-west, but elsewhere falls were normal to below normal. In most of South Australia rainfall in autumn was generally below normal grading from about 60 per cent deficit in the southern divisions to almost 100 per cent deficit in the extreme north of the State.

In the northern half of the Northern Territory rainfall was well above normal during the season. However, in the southern half rainfall was below normal, deficits becoming progressively larger towards the interior, exceeding 90 per cent deficit near the Northern Territory-South Australian border. In Queensland autumn rainfall was well below normal in the south and west, near normal in central districts and generally above normal in the north. In New South Wales rainfall for the season was well below normal. Severe drought conditions persisted in most

districts. In the southern divisions of Victoria seasonal rainfall was mostly normal to above normal, but in the northern divisions departures below normal generally ranged from 40-60 per cent. In Tasmania the rainfall was above normal for the season, nearly all divisions receiving 20 per cent or more above normal. The rainfall situation over the inland pastoral areas of the continent was generally serious, drought conditions being widespread particularly in western New South Wales, south-west Queensland and the interiors of South Australia and the Northern Territory. Temperatures generally were about normal over the continent during the season.

In winter abundant rains fell over much of Western Australia. In Queensland rainfall was above normal in the south-east corner of the State and a few northern districts, but elsewhere falls were well below average. Falls in New South Wales were mainly below average, except in the south-west of the State and in the North Coast and Metropolitan Districts. In Victoria rainfall was below average in some districts while in Tasmania below average conditions were experienced generally. Rainfall in South Australia was average to above average. Temperatures in Western Australia, Queensland and New South Wales during winter were mostly about normal. In Victoria temperatures were in the main below average while in Tasmania conditions were above normal in most areas. A storm in Queensland in July caused damage to crops and structures in south-eastern districts.

In Western Australia the outlook for crops and pastures was generally good to excellent. Useful rains in the eastern Darling Downs area and light rains in other southern and south-west districts brought some relief from the drought in Queensland, but generally pastures were slow in response and stock conditions continued to deteriorate in many areas of the State. Wheat and sugar prospects for Queensland were below average. In New South Wales the outlook for stock and crops in some areas was poor. The outlook for pastures and crops in Victoria and Tasmania was generally fair to good. Similarly in South Australia good general rains enhanced the prospects for crops and pastures, but follow-up rains were needed to consolidate the situation.

In spring, rainfall in the southern half of Western Australia was mainly above normal. Little rain was received in the northern half. In the Northern Territory and South Australia rainfall was below normal except over the north-west interior of South Australia extending across the border into the Northern Territory. Queensland rainfall was considerably below normal, particularly in northern and south-western areas. Spring rainfall in New South Wales was chiefly below normal, particularly in the north-west and parts of the north-east. In Victoria seasonal rainfall was below average in most of the State. Tasmania's rainfall was mostly below normal except in the south-west. Temperatures in Western Australia were variable but chiefly above normal. Queensland experienced temperatures above normal throughout with several hot spells. In New South Wales temperatures were above normal with an exceptionally hot spell over the State during the last week in September. Similarly in Victoria temperatures were above normal throughout and in Tasmania temperatures were normal to slightly above. Serious bushfires occurred in New South Wales during the season and there were outbreaks in parts of Victoria also.

CHAPTER 3

GENERAL GOVERNMENT

Parliamentary government

Scheme of parliamentary government

Under section 1 of the Commonwealth of Australia Constitution the legislative power of the Commonwealth is vested in the Parliament of the Commonwealth, which consists of the Sovereign, the Senate, and the House of Representatives. The Sovereign is represented throughout the Commonwealth by the Governor-General who, subject to the Constitution of the Commonwealth, has such powers and functions as the Sovereign is pleased to assign to him. In each State there is a State Governor who is the representative of the Sovereign for the State and who exercises such powers within the State as are conferred upon him by the Letters Patent which constitute his office and by the instructions which detail the manner in which his duties are to be fulfilled. The Legislature in each State was bicameral until 1922, when the Queensland Upper House was abolished and the Parliament became unicameral. In the bicameral Parliaments, the Upper House is known in the Commonwealth Parliament as the Senate, and in the State Parliaments as the Legislative Council, while the Lower House is known in the Commonwealth Parliament as the House of Representatives, in the State Parliaments of New South Wales, Victoria and Western Australia as the Legislative Assembly, and in the State Parliaments of South Australia and Tasmania as the House of Assembly. In Queensland the sole legislative chamber is known as the Legislative Assembly. The extent of the legislative powers of the Parliaments is defined by the Commonwealth and State Constitutions. The Assembly, which is the larger House, is in all cases elective, the franchise extending to adult British subjects with certain residential qualifications. The Council in each of the States other than New South Wales is elected by the people of the State concerned, the constituencies being differently arranged and, formerly, some property or special qualification for the electorate being required. In Victoria, however, under the *Legislative Council Reform Act* 1950, and in Western Australia under the *Constitution Acts Amendment Act* (No. 2), 1963, adult suffrage was adopted also for Legislative Council elections. In the case of New South Wales the Council is elected by the members of both Houses of Parliament at a simultaneous sitting. In the Federal Parliament the qualifications for the franchise are identical for both Houses, extending to adult British subjects who have lived in Australia for six months continuously.

The Sovereign

On 7 February 1952 the Governor-General and members of the Federal Executive Council proclaimed Princess Elizabeth Queen Elizabeth the Second, Queen of this Realm and of all Her other Realms and Territories, Head of the Commonwealth, Defender of the Faith, Supreme Liege Lady in and over the Commonwealth of Australia. The coronation of Her Majesty in Westminster Abbey took place on 2 June 1953.

The Governor-General

Powers and functions. As the Queen's representative in Australia, the Governor-General exercises certain prerogative powers and functions assigned to him by the Queen. Other powers and functions are conferred on him by the Constitution. Powers which have been so assigned or conferred include, among others, the power to grant pardons and to remit fines for offences against the laws of the Commonwealth; to appoint certain officers in the Diplomatic or Consular Service of the Commonwealth; to appoint times for holding the sessions of the Parliament, prorogue Parliament and dissolve the House of Representatives; to cause writs to be issued for general elections of members of the House of Representatives; to assent in the Queen's name to a proposed law passed by both Houses of the Parliament or withhold assent, or to reserve the law for the Queen's pleasure, or to return the proposed law to the House in which it originated and transmit therewith any amendments which he may recommend; to exercise the executive power of the Commonwealth; to choose and summon Executive Councillors, who hold office during his pleasure; and to appoint Ministers of State for the Commonwealth. In addition, the command in chief of the defence forces of the Commonwealth is vested in the Governor-General as the Queen's representative.

Most Acts of the Commonwealth Parliament provide that the Governor-General may make regulations to give effect to the Act. The Governor-General may also be authorized by statute to issue proclamations—for example, to declare an Act in force or a state of things to exist, e.g. the existence of an epidemic. He has been given power by statute to legislate for certain Territories of

the Commonwealth. Under the conventions of responsible government obtaining in British Commonwealth countries, the Governor-General's functions are exercised generally on the advice of Ministers of State.

Holders of office. The following list shows the names of the Governors-General since the inception of the Commonwealth.

GOVERNORS-GENERAL

- Rt. Hon. JOHN ADRIAN LOUIS, EARL OF HOPETOUN (afterwards MARQUIS OF LINLITHGOW), P.C., K.T., G.C.M.G., G.C.V.O. From 1 January 1901 to 9 January 1903.
- Rt. Hon. HALLAM, BARON TENNYSON, P.C., G.C.M.G. From 17 July 1902 to 9 January 1903, (Acting).
- Rt. Hon. HALLAM, BARON TENNYSON, P.C., G.C.M.G. From 9 January 1903 to 21 January 1904.
- Rt. Hon. HENRY STAFFORD, BARON NORTHCOTE, P.C., G.C.M.G., G.C.I.E., C.B. From 21 January 1904 to 9 September 1908.
- Rt. Hon. WILLIAM HUMBLE, EARL OF DUDLEY, P.C., G.C.B., G.C.M.G., G.C.V.O. From 9 September 1908 to 31 July 1911.
- Rt. Hon. THOMAS, BARON DENMAN, P.C., G.C.M.G., K.C.V.O. From 31 July 1911 to 18 May 1914.
- Rt. Hon. SIR RONALD CRAUFURD MUNRO FERGUSON (afterwards VISCOUNT NOVAR OF RAITH), G.C.M.G. From 18 May 1914 to 6 October 1920.
- Rt. Hon. HENRY WILLIAM, BARON FORSTER OF LEPE, P.C., G.C.M.G. From 6 October 1920 to 8 October 1925.
- Rt. Hon. JOHN LAWRENCE, BARON STONEHAVEN, P.C., G.C.M.G., D.S.O. From 8 October 1925 to 22 January 1931.
- Rt. Hon. SIR ISAAC ALFRED ISAACS, P.C., G.C.B., G.C.M.G., K.C. From 22 January 1931 to 23 January 1936.
- General the Rt. Hon. ALEXANDER GORE ARKWRIGHT, BARON GOWRIE, V.C., P.C., G.C.M.G., C.B., D.S.O., K.G.St.J. From 23 January 1936 to 30 January 1945.
- His Royal Highness PRINCE HENRY WILLIAM FREDERICK ALBERT, DUKE OF GLOUCESTER, EARL OF ULSTER AND BARON CULLODEN, K.G., K.T., K.P., P.C., G.C.B., G.C.M.G., G.C.V.O., General in the Army, Air Chief Marshal in the Royal Air Force, One of His Majesty's Personal Aides-de-Camp. From 30 January 1945 to 11 March 1947.
- Rt. Hon. SIR WILLIAM JOHN MCKELL, G.C.M.G., Q.C. From 11 March 1947 to 8 May 1953.
- Field Marshal SIR WILLIAM JOSEPH SLIM (afterwards VISCOUNT SLIM OF YARRALUMLA), K.G., G.C.B., G.C.M.G., G.C.V.O., G.B.E., D.S.O., M.C., K.St.J. From 8 May 1953 to 2 February 1960.
- Rt. Hon. WILLIAM SHEPHERD, VISCOUNT DUNROSSIL, P.C., G.C.M.G., M.C., K.St.J., Q.C. From 2 February 1960 to 3 February 1961.
- Rt. Hon. WILLIAM PHILIP, VISCOUNT DE L'ISLE, V.C., P.C., G.C.M.G., G.C.V.O., K.St.J. From 3 August 1961, to 6 May 1965.
- Rt. Hon. RICHARD GARDINER, BARON CASEY, P.C. G.C.M.G., C.H., D.S.O., M.C., K.St.J. From 22 September 1965.

Administrators. In addition to the holders of the office of Governor-General listed above, certain persons have, from time to time, been appointed as Administrator of the Government of the Commonwealth. Administrators are appointed in the event of the death, illness or absence from Australia of the Governor-General, or for the period between the departure of a Governor-General and the arrival of his successor. The following is a list of such appointments.

ADMINISTRATORS

- Rt. Hon. FREDERIC JOHN NAPIER, BARON CHELMSFORD, K.C.M.G. From 21 December 1909 to 27 January 1910.
- Lieut.-Colonel the Rt. Hon. ARTHUR HERBERT TENNYSON, BARON SOMERS, K.C.M.G., D.S.O., M.C. From 3 October 1930 to 22 January 1931.
- Captain the Rt. Hon. WILLIAM CHARLES ARCEDECKNE VANNECK, BARON HUNTINGFIELD, K.C.M.G., K.St.J. From 29 March 1938 to 24 September 1938.
- Major-General SIR WINSTON JOSEPH DUGAN, G.C.M.G., C.B., D.S.O. From 5 September 1944 to 30 January 1945; 18 January 1947 to 11 March 1947.
- General* SIR JOHN NORTHCOTT, K.C.M.G., C.B., M.V.O.† From 19 July 1951 to 14 December 1951; 30 July 1956 to 22 October 1956.
- General SIR REGINALD ALEXANDER DALLAS BROOKS, K.C.B., G.C.M.G., K.C.V.O., D.S.O., K.St.J. From 8 January 1959 to 16 January 1959; 3 February 1961 to 3 August 1961; 5 June 1962 to 4 October 1962; 21 November 1962 to 19 December 1962.
- General SIR ERIC WINSLOW WOODWARD, K.C.M.G., K.C.V.O., C.B., C.B.E., D.S.O. From 16 June 1964 to 30 August 1964.
- Colonel SIR HENRY ABEL SMITH, K.C.M.G., K.C.V.O., D.S.O. From 7 May 1965 to 21 September 1965.

* Lieutenant-General Sir John Northcott was granted honorary rank of General while administering the Government of the Commonwealth. † K.C.V.O., 1954.

Governors of the States

Powers and functions. The Queen is represented in each of the States by a Governor, the office having been constituted by Letters Patent under the Great Seal of the United Kingdom of various dates. The Governors of the States exercise prerogative powers conferred on them by these Letters Patent, their Commissions of appointment, and the Governor's Instructions given them under the Royal Sign Manual and Signet or other instrument as specified in the Letters Patent. In addition, they have been invested with various statutory functions, either under the State Constitutions, conferred by Imperial Act, or by Act of the Parliament of the State.

A Governor of a State assents in the Queen's name to Bills passed by the Parliament of the State, except those reserved for the Royal assent. The latter include certain classes of Bills which are regulated by the Constitution Acts and by the Governor's Instructions. He administers the prerogative of mercy by the reprieve or pardon of criminal offenders within his jurisdiction, and may remit fines and penalties due to the Crown. In the performance of his functions generally, particularly those conferred by Statute, the Governor of a State acts on the advice of Ministers of State for the State.

Holders of office. The names of the present (December 1965) State Governors are as follows.

STATE GOVERNORS, DECEMBER 1965

New South Wales—SIR KENNETH WHISTLER STREET, K.C.M.G., K.St.J.*

Victoria—MAJOR-GENERAL SIR ROHAN DELACOMBE, K.C.M.G., K.B.E., C.B., D.S.O., K.St.J.

Queensland—COLONEL SIR HENRY ABEL SMITH, K.C.M.G., K.C.V.O., D.S.O.

South Australia—LIEUT.-GENERAL SIR EDRIC MONTAGUE BASTYAN, K.C.M.G., K.C.V.O., K.B.E., C.B.

Western Australia—MAJOR-GENERAL SIR DOUGLAS ANTHONY KENDREW, K.C.M.G., C.B., C.B.E., D.S.O.

Tasmania—LIEUT.-GENERAL SIR CHARLES HENRY GAIRDNER, K.C.M.G., K.C.V.O., K.B.E., C.B.

The Cabinet and executive government

Both in the Commonwealth and in the States, executive government is based on the system which was evolved in Britain in the 18th century, and which is generally known as 'Cabinet' or 'responsible' government. Its essence is that the head of the State (Her Majesty the Queen, and her representative, the Governor-General or Governor) should perform governmental acts on the advice of her Ministers; that she should choose her principal Ministers of State from members of Parliament belonging to the party, or coalition of parties, commanding a majority in the popular House; that the Ministry so chosen should be collectively responsible to that House for the government of the country; and that the Ministry should resign if it ceases to command a majority there.

The Cabinet system operates chiefly by means of constitutional conventions, customs, or understandings, and through institutions that do not form part of the legal structure of the government at all. The Constitutions of the Commonwealth and the States make fuller legal provision for the Cabinet system than the British Constitution does—for example, by requiring that Ministers shall either be, or within a prescribed period become, members of the Legislature. In general, however, the legal structure of the executive government remains the same as it was before the establishment of the Cabinet system.

The executive power of the Commonwealth is exercisable by the Governor-General, and that of the States by the Governor. In each case he is advised by an Executive Council, which, however, meets only for certain formal purposes, as explained on p. 55. The whole policy of a Ministry is, in practice, determined by some or all of the Ministers of State, meeting without the Governor-General or Governor under the chairmanship of the Prime Minister or Premier. This group of Ministers is known as the Cabinet.

The Cabinet. This body does not form part of the legal mechanism of government. Its meetings are private and deliberative. The actual Ministers of the day alone are present, no records of the meetings are made public, and the decisions taken have, in themselves, no legal effect. In Australia, until January 1956, all Ministers were members of the Cabinet. Since then, however, although in the States all Ministers are members of the Cabinet, the Commonwealth ministry is made up of twelve senior Ministers, who constitute the Cabinet, and other Ministers† of non-Cabinet rank who attend meetings of the Cabinet only when required, as, for example, when the business of the Cabinet concerns their departments. As Ministers are the leaders of the party or parties commanding a majority in the popular House, the Cabinet substantially controls, in ordinary circumstances, not only the general legislative programme of Parliament, but the whole course of Parliamentary proceedings. In effect, though not in form, the Cabinet, by reason of the fact

* Lieutenant-Governor, Sir Roden Cutler, V.C., K.C.M.G., C.B.E., K.St.J., was sworn in as Governor on 20 January 1966.

† Thirteen, as from 4 March 1964.

that all Ministers are members of the Executive Council, is also the dominant element in the executive government of the country. Even in summoning, proroguing or dissolving Parliament, the Governor-General or Governor is usually guided by the advice tendered him by the Cabinet, through the Prime Minister or Premier, though legally the discretion is vested in the Governor-General or Governor himself.

The Executive Council. This body is usually presided over by the Governor-General or Governor, the members thereof holding office during his pleasure. All Ministers of State must be members of the Executive Council. In the Commonwealth, and also in the States of Victoria and Tasmania, Ministers remain members of the Executive Council on leaving office, but are not summoned to attend its meetings, for it is an essential feature of the Cabinet system that attendance should be limited to the Ministers of the day. The meetings of the Executive Council are formal and official in character, and a record of proceedings is kept by the Secretary or Clerk. At Executive Council meetings the decisions of the Cabinet are, where necessary, given legal form, appointments made, resignations accepted, proclamations issued, and regulations and the like approved.

The appointment of Ministers. Legally, Ministers hold office during the pleasure of the Governor-General or Governor. In practice, however, the discretion of the Queen's representative in the choice of Ministers is limited by the conventions on which the Cabinet system rests. When a Ministry resigns the Crown's custom is to send for the leader of the party which commands, or is likely to be able to command, a majority in the popular House, and to commission him, as Prime Minister or Premier, to 'form a Ministry'—that is, to nominate other persons to be appointed as Ministers of State and to serve as his colleagues in the Cabinet.

Ministers in Upper and Lower Houses. The following table shows the distribution of Ministers in the Houses of each Parliament in December 1965.

AUSTRALIAN PARLIAMENTS: MINISTERS IN UPPER OR LOWER HOUSES, DECEMBER 1965

Ministers with seats in—	Cwlth.	N.S.W.	Vic. (a)	Qld	S.A. (b)	W.A. (c)	Tas.	Total
The Upper House	5	2	4	(d)	3	3	1	18
The Lower House	20	14	11	13	6	9	8	81
Total	25	16	15	13	9	12	9	99

(a) By the *Constitution Act Amendment (Responsible Ministers) Act 1964* the number of Ministers was increased to fifteen from 8 July 1964. (b) By the *Constitution Act, 1965* the number of Ministers was increased to nine from 10 November 1965. (c) Under the *Constitution Acts Amendment Act, 1965* the number of Ministers was increased to twelve from 17 August 1965. (d) Abolished in 1922.

Commonwealth Ministries

Names and tenure of office, 1901 to 1965. The following list shows the name of each Commonwealth Ministry to hold office since 1 January 1901, and the limits of its term of office.

COMMONWEALTH MINISTRIES, 1901 TO 1965

- (i) BARTON MINISTRY, 1 January 1901 to 24 September 1903.
- (ii) DEAKIN MINISTRY, 24 September 1903 to 27 April 1904.
- (iii) WATSON MINISTRY, 27 April 1904 to 17 August 1904.
- (iv) REID-MCLEAN MINISTRY, 18 August 1904 to 5 July 1905.
- (v) DEAKIN MINISTRY, 5 July 1905 to 13 November 1908.
- (vi) FISHER MINISTRY, 13 November 1908 to 1 June 1909.
- (vii) DEAKIN MINISTRY, 2 June 1909 to 29 April 1910.
- (viii) FISHER MINISTRY, 29 April 1910 to 24 June 1913.
- (ix) COOK MINISTRY, 24 June 1913 to 17 September 1914.
- (x) FISHER MINISTRY, 17 September 1914 to 27 October 1915.
- (xi) HUGHES MINISTRY, 27 October 1915 to 14 November 1916.
- (xii) HUGHES MINISTRY, 14 November 1916 to 17 February 1917.
- (xiii) HUGHES MINISTRY, 17 February 1917 to 10 January 1918.
- (xiv) HUGHES MINISTRY, 10 January 1918 to 9 February 1923.
- (xv) BRUCE-PAGE MINISTRY, 9 February 1923 to 22 October 1929.
- (xvi) SCULLIN MINISTRY, 22 October 1929 to 6 January 1932.
- (xvii) LYONS MINISTRY, 6 January 1932 to 7 November 1938.
- (xviii) LYONS MINISTRY, 7 November 1938 to 7 April 1939.
- (xix) PAGE MINISTRY, 7 April 1939 to 26 April 1939.
- (xx) MENZIES MINISTRY, 26 April 1939 to 14 March 1940.

COMMONWEALTH MINISTRIES, 1901 TO 1965—*continued*

- (xxi) MENZIES MINISTRY, 14 March 1940 to 28 October 1940.
- (xxii) MENZIES MINISTRY, 28 October 1940 to 29 August 1941.
- (xxiii) FADDEN MINISTRY, 29 August 1941 to 7 October 1941.
- (xxiv) CURTIN MINISTRY, 7 October 1941 to 21 September 1943.
- (xxv) CURTIN MINISTRY, 21 September 1943 to 6 July 1945.
- (xxvi) FORDE MINISTRY, 6 July 1945 to 13 July 1945.
- (xxvii) CHIFLEY MINISTRY, 13 July 1945 to 1 November 1946.
- (xxviii) CHIFLEY MINISTRY, 1 November 1946 to 19 December 1949.
- (xxix) MENZIES MINISTRY, 19 December 1949 to 11 May 1951.
- (xxx) MENZIES MINISTRY, 11 May 1951 to 11 January 1956.
- (xxxi) MENZIES MINISTRY, 11 January 1956 to 10 December 1958.
- (xxxii) MENZIES MINISTRY, 10 December 1958 to 18 December 1963.
- (xxxiii) MENZIES MINISTRY, 18 December 1963.

Names of holders of Commonwealth Ministerial office, to 31 December 1965. In Year Book No. 17, 1924, the names are given of each Ministry up to the Bruce-Page Ministry (9 February 1923 to 22 October 1929), together with the names of the successive holders of portfolios therein, and issue No. 39 contains a list, commencing with the Bruce-Page Ministry, which covers the period between the date on which it assumed power, 9 February 1923, and 31 July 1951, showing the names of all persons who held office in each Ministry during that period.

This issue shows only particulars of the latest Menzies Ministry, as constituted on 13 August 1965. For subsequent changes, see Appendix.

MENZIES MINISTRY—FROM 18 DECEMBER 1963

(Portfolios from 13 August 1965)

(The State in which each Minister's electorate is situated is shown in parenthesis)

- | | |
|--|---|
| <p><i>*Prime Minister—</i>
THE RT. HON. SIR ROBERT MENZIES, K.T.,
C.H., Q.C., M.P. (Vic.).</p> <p><i>*Minister for Trade and Industry—</i>
THE RT. HON. J. McEWEN, M.P. (Vic.).</p> <p><i>*Treasurer—</i>
THE RT. HON. H. E. HOLT, M.P. (Vic.).</p> <p><i>*Minister for External Affairs—</i>
THE RT. HON. PAUL HASLUCK, M.P.
(W.A.).</p> <p><i>*Minister for Labour and National Service and
Vice-President of the Executive Council—</i>
THE HON. W. McMAHON, M.P. (N.S.W.).</p> <p><i>*Minister for Primary Industry—</i>
THE HON. C. F. ADERMANN, M.P. (Qld).</p> <p><i>*Minister for Defence—</i>
SENATOR THE HON. SIR SHANE PALTRIDGE,
K.B.E. (W.A.).</p> <p><i>*Minister for Supply—</i>
THE HON. ALLEN FAIRHALL, M.P. (N.S.W.).</p> <p><i>*Minister for Civil Aviation—</i>
SENATOR THE HON. N. H. D. HENTY (Tas.).</p> <p><i>*Postmaster-General—</i>
THE HON. A. S. HULME, M.P. (Qld).</p> <p><i>*Minister for National Development—</i>
THE HON. D. E. FAIRBAIRN, D.F.C., M.P.
(N.S.W.).</p> <p><i>*Minister for Territories—</i>
THE HON. C. E. BARNES, M.P. (Qld).</p> <p><i>Minister for Works and, under the Prime
Minister, Minister in Charge, Commonwealth
Activities in Education and Research—</i>
SENATOR THE HON. J. G. GORTON (Vic.).</p> | <p><i>Minister for Shipping and Transport—</i>
THE HON. GORDON FREETH, M.P. (W.A.).</p> <p><i>Minister for Immigration—</i>
THE HON. HUBERT OPPERMAN, O.B.E.,
M.P. (Vic.).</p> <p><i>Minister for Health—</i>
THE HON. R. W. C. SWARTZ, M.B.E.,
E.D., M.P. (Qld).</p> <p><i>Attorney-General—</i>
THE HON. B. M. SNEDDEN, Q.C., M.P.
(Vic.).</p> <p><i>Minister for Housing—</i>
THE HON. L. H. E. BURY, M.P. (N.S.W.).</p> <p><i>Minister for the Army and assisting the
Treasurer—</i>
THE HON. A. J. FORBES, M.C., M.P. (S.A.).</p> <p><i>Minister for the Interior—</i>
THE HON. J. D. ANTHONY, M.P. (N.S.W.).</p> <p><i>Minister for the Navy—</i>
THE HON. F. C. CHANEY, A.F.C., M.P.
(W.A.).</p> <p><i>Minister for Air—</i>
THE HON. PETER HOWSON, M.P. (Vic.).</p> <p><i>Minister for Customs and Excise—</i>
SENATOR THE HON. KEN ANDERSON
(N.S.W.).</p> <p><i>Minister for Repatriation—</i>
SENATOR THE HON. G. C. McKELLAR
(N.S.W.).</p> <p><i>Minister for Social Services—</i>
THE HON. I. McC. SINCLAIR, M.P. (N.S.W.).</p> |
|--|---|

* Minister in the Cabinet.

Year Book No. 38 contains a statement listing the Commonwealth Departments in existence during the period 1 April 1925 to 31 December 1949 and the names of the Ministers of State who had administered them (pp. 74-9). This is in continuation of a similar statement covering the period from the inauguration of the Commonwealth Government to 1925 which appears in Year Book No. 18.

State Ministries, December 1965

The names of the members of the Ministries in each State in December 1965 are shown in the following statement. For subsequent changes, see Appendix.

STATE MINISTRIES, DECEMBER 1965

NEW SOUTH WALES

Ministry (from 13 May 1965)

Premier and Treasurer—

THE HON. R. W. ASKIN, M.L.A.

Deputy Premier, Minister for Education, and Minister for Science—

THE HON. C. B. CUTLER, E.D., M.L.A.

Minister for Labour and Industry, Chief Secretary, and Minister for Tourist Activities—

THE HON. E. A. WILLIS, M.L.A.

Minister for Child Welfare, Minister for Social Welfare, Advisory Minister for Transport, and Vice-President of the Executive Council—

THE HON. A. D. BRIDGES, M.L.C.

Minister for Agriculture—

THE HON. W. A. CHAFFEY, M.L.A.

Attorney-General—

THE HON. K. M. McCAW, M.L.A.

Minister for Local Government and Minister for Highways—

THE HON. P. H. MORTON, M.L.A.

Minister for Public Works—

THE HON. D. HUGHES, M.L.A.

Minister for Transport—

THE HON. M. A. MORRIS, M.L.A.

Minister for Decentralisation and Development—

THE HON. J. B. M. FULLER, M.L.C.

Minister for Lands and Minister for Mines—

THE HON. T. L. LEWIS, M.L.A.

Minister for Conservation—

THE HON. J. G. BEALE, M.L.A.

Minister for Housing and Minister for Co-operative Societies—

THE HON. S. T. STEPHENS, M.L.A.

Minister of Justice—

THE HON. J. C. MADDISON, M.L.A.

Minister for Health—

THE HON. A. H. JAGO, M.L.A.

Assistant Minister for Education—

THE HON. W. C. FIFE, M.L.A.

VICTORIA

Ministry (from 7 June 1955)

(Portfolios as from 1 December 1965)

Premier and Treasurer—

THE HON. SIR HENRY BOLTE, K.C.M.G., M.P.

Chief Secretary and Attorney-General—

THE HON. A. G. RYLAH, C.M.G., E.D., M.P.

Minister of Agriculture—

THE HON. G. L. CHANDLER, C.M.G., M.L.C.

Minister of Housing and Minister of Forests—

THE HON. L. H. S. THOMPSON, M.L.C.

Minister of Education—

THE HON. J. S. BLOOMFIELD, Q.C., M.P.

Minister for Fuel and Power—

THE HON. G. O. RIDD, M.P.

Minister of Public Works—

THE HON. M. V. PORTER, M.P.

Minister of Transport—

THE HON. E. L. MEAGHER, M.B.E., E.D., M.P.

Minister for Local Government—

THE HON. R. J. HAMER, E.D., M.L.C.

Minister of Lands, Minister of Soldier Settlement and Minister for Conservation—

THE HON. J. C. M. BALFOUR, M.P.

Minister of Water Supply and Minister of Mines—

THE HON. T. A. DARCY, M.P.

Minister of Immigration—

THE HON. J. F. ROSSITER, M.P.

Minister of Labour and Industry—

THE HON. V. F. WILCOX, M.P.

Minister of Health—

THE HON. V. O. DICKIE, M.L.C.

Minister of State Development—

THE HON. J. W. MANSON, M.P.

STATE MINISTRIES, 1965—continued

QUEENSLAND

*Ministry (from 14 June 1963)**(Portfolios as from 11 March 1965)*

*Premier and Minister for State Development,
and Vice-President of the Executive Council—*
THE HON. G. F. R. NICKLIN, M.M., M.L.A.

Treasurer—
THE HON. G. W. W. CHALK, M.L.A.

Minister for Education—
THE HON. J. C. A. PIZZEY, M.L.A.

Minister for Industrial Development—
THE HON. A. T. DEWAR, M.L.A.

Minister for Lands—
THE HON. A. R. FLETCHER, M.L.A.

*Minister for Local Government and
Conservation—*
THE HON. H. RICHTER, M.L.A.

Minister for Primary Industries—
THE HON. J. A. ROW, M.L.A.

Minister for Works and Housing—
THE HON. J. BJELKE-PETERSEN, M.L.A.

Minister for Justice and Attorney-General—
THE HON. P. R. DELAMOTHE, O.B.E., M.L.A.

Minister for Health—
THE HON. S. D. TOOTH, M.L.A.

Minister for Labour and Industry—
THE HON. J. D. HERBERT, M.L.A.

Minister for Mines and Main Roads—
THE HON. R. E. CAMM, M.L.A.

Minister for Transport—
THE HON. W. E. KNOX, M.L.A.

SOUTH AUSTRALIA

Ministry (from 27 May 1965)

*Premier, Treasurer, Minister of Immigration,
and Minister of Housing—*
THE HON. F. H. WALSH, M.P.

Chief Secretary and Minister of Health—
THE HON. A. J. SHARD, M.L.C.

Minister of Works and Minister of Marine—
THE HON. C. D. HUTCHENS, M.P.

*Attorney-General, Minister of Aboriginal
Affairs and Minister of Social Welfare—*
THE HON. D. A. DUNSTAN, Q.C., M.P.

Minister of Education—
THE HON. R. R. LOVEDAY, M.P.

*Minister of Local Government, Minister of
Roads, and Minister of Mines—*
THE HON. S. C. BEVAN, M.L.C.

*Minister of Labour and Industry, and Minister
of Transport—*
THE HON. A. F. KNEEBONE, M.L.C.

*Minister of Agriculture and Minister of
Forests—*
THE HON. G. A. BYWATERS, M.P.

*Minister of Lands, Minister of Repatriation
and Minister of Irrigation—*
THE HON. J. D. CORCORAN, M.P.

WESTERN AUSTRALIA

Ministry (from 17 August 1965)

Premier, Treasurer, and Minister for Tourists—
THE HON. D. BRAND, M.L.A.

*Deputy Premier, and Minister for Agriculture
and Electricity—*
THE HON. C. D. NALDER, M.L.A.

*Minister for Industrial Development, Railways,
and the North-West—*
THE HON. C. W. M. COURT, O.B.E., M.L.A.

Minister for Education and Native Welfare—
THE HON. E. H. M. LEWIS, M.L.A.

Minister for Mines and Justice—
THE HON. A. F. GRIFFITH, M.L.C.

Minister for Lands, Forests, and Immigration—
THE HON. W. S. BOVELL, M.L.A.

Minister for Works and Water Supplies—
THE HON. R. HUTCHINSON, D.F.C., M.L.A.

*Minister for Local Government, Town Planning
and Child Welfare—*
THE HON. L. A. LOGAN, M.L.C.

*Chief Secretary, and Minister for Police and
Traffic—*
THE HON. J. F. CRAIG, M.L.A.

Minister for Housing and Labour—
THE HON. D. H. O'NEIL, M.L.A.

Minister for Transport—
THE HON. R. J. O'CONNOR, M.L.A.

Minister for Health, and Fisheries and Fauna—
THE HON. G. C. MACKINNON, M.L.C.

STATE MINISTRIES, 1965—*continued*

TASMANIA

Ministry (from 13 May 1964)

<i>Premier, Treasurer and Minister for Mines—</i> THE HON. E. E. REECE, M.H.A.	<i>Chief Secretary—</i> THE HON. B. K. MILLER, M.L.C.
<i>Deputy Premier and Attorney-General—</i> THE HON. R. F. FAGAN, M.H.A.	<i>Minister for Housing and Forests—</i> THE HON. S. V. WARD, M.H.A.
<i>Minister for Education—</i> THE HON. W. A. NEILSON, M.H.A.	<i>Minister for Health—</i> THE HON. M. G. EVERETT, Q.C., M.H.A.
<i>Minister for Lands and Works—</i> THE HON. D. A. CASHION, M.H.A.	<i>Minister for Transport and Police—</i> THE HON. H. J. MCLOUGHLIN, M.H.A.
<i>Minister for Agriculture and Tourists—</i> THE HON. A. C. ATKINS, M.H.A.	

Leaders of the Opposition, Commonwealth and State Parliaments, December 1965

The Leader of the Opposition plays an important part in the Party system of government which operates in the Australian Parliaments. The following list gives the names of the holders of this position in each of the Parliaments in December 1965.

LEADERS OF THE OPPOSITION, DECEMBER 1965

<i>Commonwealth—</i> The Hon. A. A. Calwell, M.P.
<i>New South Wales—</i> J. B. Renshaw, M.L.A.
<i>Victoria—</i> The Hon. C. P. Stoneham, M.P.
<i>Queensland—</i> J. E. Duggan, M.L.A.
<i>South Australia—</i> Sir Thomas Playford, G.C.M.G., M.P.
<i>Western Australia—</i> The Hon. A. R. G. Hawke, M.L.A.
<i>Tasmania—</i> The Hon. W. A. Bethune, M.H.A.

Numbers and salaries of Commonwealth Ministers

Under sections 65 and 66, respectively, of the Constitution of the Commonwealth the number of Ministers of State was not to exceed seven, and the annual sum payable for their salaries was not to exceed £12,000, each provision to operate, however, 'until the Parliament otherwise provides'.

Subsequently the number and salaries have been increased from time to time, and from 1964 the annual sum payable for salaries has been fixed at \$191,300 and the number of Ministers at twenty-five. An additional ministerial allowance of \$8,000 a year has been payable to the Prime Minister since 1964, and an additional ministerial allowance of \$3,600 a year for senior Ministers and \$3,000 a year for junior Ministers.

All amounts payable in the foregoing paragraphs are in addition to amounts payable as Parliamentary allowances (*see* p. 69).

Parliaments and elections

The Commonwealth Parliaments

The first Parliament of the Commonwealth was convened by proclamation dated 29 April 1901 by His Excellency the Marquis of Linlithgow, then Earl of Hopetoun, Governor-General. It was opened on 9 May 1901 by H.R.H. the Duke of Cornwall and York. The Rt. Hon. Sir Edmund Barton, G.C.M.G., K.C., was Prime Minister.

The following table shows the number and duration of Parliaments since federation.

COMMONWEALTH PARLIAMENTS

Number of Parliament	Date of opening	Date of dissolution
First	9 May 1901	23 November 1903
Second	2 March 1904	5 November 1906
Third	20 February 1907	19 February 1910
Fourth	1 July 1910	23 April 1913
Fifth	9 July 1913	30 July 1914(a)
Sixth	8 October 1914	26 March 1917
Seventh	14 June 1917	3 November 1919
Eighth	26 February 1920	6 November 1922
Ninth	28 February 1923	3 October 1925
Tenth	13 January 1926	9 October 1928
Eleventh	9 February 1929	16 September 1929
Twelfth	20 November 1929	27 November 1931
Thirteenth	17 February 1932	7 August 1934
Fourteenth	23 October 1934	21 September 1937
Fifteenth	30 November 1937	27 August 1940
Sixteenth	20 November 1940	7 July 1943
Seventeenth	23 September 1943	16 August 1946
Eighteenth	6 November 1946	31 October 1949
Nineteenth	22 February 1950	19 March 1951(a)
Twentieth	12 June 1951	21 April 1954
Twenty-first	4 August 1954	4 November 1955
Twenty-second	15 February 1956	14 October 1958
Twenty-third	17 February 1959	2 November 1961
Twenty-fourth	20 February 1962	1 November 1963
Twenty-fifth	25 February 1964	

(a) A dissolution of both the Senate and the House of Representatives was granted by the Governor-General, acting on the advice of the Cabinet and under section 57 of the Constitution.

There have been twenty-four complete Parliaments since Federation. Until 1927 the Parliament met in Melbourne; it now meets in Canberra, the first meeting at Parliament House, Canberra, being opened by the Duke of York on 9 May 1927.

The twenty-fourth Parliament opened on 20 February 1962 and was dissolved on 1 November 1963. Elections for the House of Representatives were held on 30 November 1963. An election was also held on the same date to fill a single casual vacancy in the Senate for the State of Queensland. Particulars of electors and voting are given on page 68 of Year Book No. 49. For particulars of electors enrolled and of electors who voted in the several States and Territories at previous Commonwealth elections, see Year Book No. 48 and earlier issues. Particulars of electors and voting at the Senate Election which was held on 5 December 1964 are given on p. 62.

A special article describing the Commonwealth Parliament, its functions and procedure, prepared by the Clerk of the Senate and the Clerk of the House of Representatives, appears in Year Book No. 49, pages 65-71.

Qualifications for membership and for franchise—Commonwealth Parliament

Qualifications necessary for membership of either House of the Commonwealth Parliament are possessed by any British subject, twenty-one years of age or over, who has resided in the Commonwealth for at least three years and who is, or is qualified to become, an elector of the Commonwealth. Qualifications for Commonwealth franchise are possessed by any British subject, not under twenty-one years of age and not disentitled on other grounds, who has lived in Australia for six months continuously. Residence in a subdivision for a period of one month prior to enrolment is necessary to enable a qualified person to enrol. Enrolment and voting are compulsory except that the compulsory enrolment provisions do not relate to an Aboriginal native of Australia. A member of the Defence Forces on service outside Australia who is a British subject not less than 21 years of age and has lived in Australia for six months continuously is entitled to vote at Commonwealth elections, whether enrolled or not.

The principal reasons for disqualification of persons otherwise eligible as members of either Commonwealth House are: membership of the other House, allegiance to a foreign power, being attainted of treason, being convicted and under sentence for any offence punishable by imprisonment for one year or longer, being an undischarged bankrupt or insolvent, holding office of profit under the Crown (with certain exceptions), or having pecuniary interest in any agreement with the public service of the Commonwealth except as a member of an incorporated company of more than twenty-five persons. Persons of unsound mind, attainted of treason, convicted and under sentence for any offence punishable by imprisonment for one year or longer, or persons who are holders of temporary entry permits under the *Migration Act* 1958-1964 or are prohibited immigrants under that Act, are excluded from the franchise. In the main, these or similar grounds for disqualification apply also to State Parliament membership and franchise.

Commonwealth Parliaments and elections

From the establishment of the Commonwealth until 1949 the Senate consisted of thirty-six members, six being returned by each of the original federating States. The Constitution empowers Parliament to increase or decrease the size of the Parliament, and, as the population of the Commonwealth had more than doubled since its inception, the Parliament passed the *Representation Act* 1948 which provided that there should be ten Senators from each State instead of six, increasing the total to sixty Senators, thus enlarging both Houses of Parliament and providing a representation ratio nearer to the proportion which existed at Federation.

In accordance with the Constitution, the total number of members of the House of Representatives must be as nearly as practicable double that of the Senate. Consequently, in terms of the Constitution and the Representation Act, from the date of the 1949 elections the number of members in the House of Representatives was increased from 74 to 121 (excluding the members for the internal Territories). As the States are represented in the House of Representatives on a population basis, the numbers were increased as follows: New South Wales—from 28 to 47; Victoria—from 20 to 33; Queensland—from 10 to 18; South Australia—from 6 to 10; and Western Australia—from 5 to 8. Tasmania's representation remained at 5 and the total was increased from 74 to 121. The increase in the number of members of Parliament necessitated a redistribution of seats and a redetermination of electoral boundaries. This was carried out by Distribution Commissioners in each State on a quota basis, but taking into account community or diversity of interest, means of communication, physical features, existing boundaries of divisions and subdivisions, and State electoral boundaries.

The population as disclosed by the Census taken on 30 June 1954 necessitated a further alteration in representation in the House of Representatives in respect of New South Wales, South Australia, and Western Australia. Representation as from the general election for the House of Representatives on 10 December 1955 is New South Wales 46, Victoria 33, Queensland 18, South Australia 11, Western Australia 9, Tasmania 5, the total number of members (excluding the members for the internal Territories) being increased from 121 to 122. A redistribution of the States into electoral divisions was effected by Distribution Commissioners appointed for each State.

The population as disclosed by the Census taken on 30 June 1961 revealed that, under the provisions of the Representation Act, New South Wales, Queensland, and Western Australia would each lose one member in the House of Representatives, while Victoria would gain a member. The Distribution Commissioners' reports were duly laid before both Houses of Parliament, but the Government decided not to proceed with the proposals and announced that it would amend the Representation Act. In November 1964 the formula provided by Section 10 of the Representation Act for determining the number of members of the House of Representatives was amended so as to give a State an additional member for 'any portion of a quota'. The effect of this amendment will be that at the next redistribution (based on the population as at the 1961 Census), Victoria and South Australia will each gain one member, i.e. to 34 and 12 members respectively, while all other States will retain their existing representation, namely, New South Wales 46, Queensland 18, Western Australia 9, and Tasmania 5.

Since the general election of 1922 the Northern Territory has been represented by one member in the House of Representatives. The Australian Capital Territory has had similar representation since the elections of 1949. The members for the Territories may join in the debates but are not entitled to vote, except on any proposed law which relates solely to the respective Territories, on a motion for the disallowance of any ordinance of the Territory or on any amendment to such motion, or on a motion for the disallowance of a regulation under an ordinance. The Commonwealth Parliament, however, when providing for a Legislative Council for the Northern Territory in 1947, relinquished the power to disallow ordinances for that Territory. As from the date of establishment of the Legislative Council, power to disallow ordinances has been vested in the Governor-General in Council. In certain cases, ordinances passed must be reserved for the pleasure of the Governor-General.

The Constitution provides for a minimum of five members for each original State. Members of the House of Representatives are elected for the duration of the Parliament, which is limited to three years. At elections for Senators the whole State constitutes the electorate. For the purpose of elections for the House of Representative the State is divided into single electorates corresponding in number with the number of members to which the State is entitled. Further information regarding the Senate and the House of Representatives is given in earlier issues of the Year Book.

The *Commonwealth Electoral Act* 1948, introduced with the *Representation Act* 1948 to enlarge the Commonwealth Parliament (see p. 61), changed the system of scrutiny and counting of votes in Senate elections from the alternative vote to that of proportional representation. For a description of the system, see Year Book No. 38, pages 82-3. The system of voting for both the Senate and the House of Representatives is preferential.

COMMONWEALTH SENATE ELECTIONS, 1964

State	Electors enrolled	Electors who voted	Formal votes cast for—				
			Liberal and Country Parties	Australian Labor Party	Australian Democratic Labour Party	Others	Total
New South Wales	2,225,466	2,085,984	937,282	899,087	93,615	26,325	1,956,309
Victoria	1,650,479	1,564,438	612,104	606,134	199,707	14,944	1,432,889
Queensland	852,741	809,290	324,310	324,578	89,936	12,563	751,387
South Australia	551,341	528,464	221,289	248,956	11,680	7,118	489,043
Western Australia	408,549	383,882	202,374	141,038	14,527	3,033	360,972
Tasmania	192,376	184,922	64,722	88,877	24,046	805	178,450
Total	5,880,952	5,556,980	2,362,081	2,308,670	433,511	64,788	5,169,050

Particulars of voting at previous Senate elections and elections for the House of Representatives appear in earlier issues of the Year Book, and additional information is available in the *Statistical Returns* issued by the Chief Electoral Officer following each election.

The state of the parties in each House at the end of 1965 was: *Senate*—Liberal Party, 23; Country Party, 7; Australian Labor Party, 27; Australian Democratic Labour Party, 2; Independent, 1. *House of Representatives*—Liberal Party, 52; Country Party, 20; Australian Labor Party, 52 (including Northern Territory and Australian Capital Territory members with restricted voting rights).

Members of the Commonwealth Parliament

The following is a list of Senators and Members of the House of Representatives of the Commonwealth Parliament as at 1 January 1966. Changes since that date are set out in the Appendix to this volume. Party affiliation is indicated by the use of the following abbreviations:

A.D.L.P.—Australian Democratic Labour Party.

A.L.P.—Australian Labor Party.

C.P.—Australian Country Party.

Ind.—Independent.

Lib.—Liberal Party of Australia.

MEMBERS OF THE COMMONWEALTH PARLIAMENT, 1 JANUARY 1966(a)

THE SENATE

President:

SENATOR THE HON. SIR ALISTER McMULLIN,
K.C.M.G.

Chairman of Committees:

SENATOR T. C. DRAKE-BROCKMAN, D.F.C.

Leader of the Government in the Senate:

SENATOR THE HON. SIR SHANE PALTRIDGE, K.B.E.

Leader of the Opposition in the Senate:

SENATOR THE HON. N. E. McKENNA

<i>Senator</i>	<i>State</i>	<i>Term Expires 30 June</i>	<i>Senator</i>	<i>State</i>	<i>Term Expires 30 June</i>
Anderson, Hon. K. M. (Lib.)	N.S.W.	1971	McKellar, Hon. G. C. (C.P.)	N.S.W.	1968
Benn, A. M. (A.L.P.)	Qld	1968	McKenna, Hon. N. E. (A.L.P.)	Tas.	1968
Bishop, R. (A.L.P.)	S.A.	1968	McManus, F. P. (A.D.L.P.)	Vic.	1971
Branson, G. H. (Lib.)	W.A.	1971	McMullin, Hon. Sir Alister, K.C.M.G. (Lib.)	N.S.W.	1971
Breen, Marie F., O.B.E. (Lib.)	Vic.	1968	Marriott, J. E. (Lib.)	Tas.	1971
Bull, T. L., O.B.E. (C.P.)	N.S.W.	1971	Mattner, E. W., M.C., D.C.M., M.M. (Lib.)	S.A.	1968
Cant, H. G. J. (A.L.P.)	W.A.	1971	Morris, Hon. K. J., C.M.G. (Lib.)	Qld	1968
Cavanagh, J. L. (A.L.P.)	S.A.	1968	Mulvihill, J. A. (A.L.P.)	N.S.W.	1971
Cohen, S. H., Q.C. (A.L.P.)	Vic.	1968	Murphy, L. K., Q.C. (A.L.P.)	N.S.W.	1968
Cooper, Hon. Sir Walter, M.B.E. (C.P.)	Qld	1968	Nicholls, T. M. (A.L.P.)	S.A.	1968
Cormack, M. C. (Lib.)	Vic.	1968	O'Byrne, J. (A.L.P.)	Tas.	1971
Cotton, R. C. (Lib.)	N.S.W.	(b)	Ormonde, J. P. (A.L.P.)	N.S.W.	1971
Davidson, G. S. (Lib.)	S.A.	1971	Paltridge, Hon. Sir Shane K.B.E. (Lib.)	W.A.	1968
Devitt, D. M. (A.L.P.)	Tas.	1971	Poke, A. G. (A.L.P.)	Tas.	1968
Dittmer, F. (A.L.P.)	Qld	1971	Prowse, E. W. (C.P.)	W.A.	1968
Drake-Brockman, T. C., D.F.C. (C.P.)	W.A.	1971	Rankin, Dame Annabelle, D.B.E. (Lib.)	Qld	1968
Drury, A. J. (A.L.P.)	S.A.	1971	Ridley, C. F. (A.L.P.)	S.A.	1971
Fitzgerald, J. F. (A.L.P.)	N.S.W.	1968	Sandford, C. W. (A.L.P.)	Vic.	1968
Gair, Hon. V. C. (A.D.L.P.)	Qld	1971	Scott, M. F. (Lib.)	W.A.	1971
Gorton, Hon. J. G. (Lib.)	Vic.	1971	Sherrington, R. D. (Lib.)	Qld	1968
Hannaford D. C. (Lib.)	S.A.	1968	Sim, J. P. (Lib.)	W.A.	(b)
Hendrickson, A. (A.L.P.)	Vic.	1971	Tangney, Dorothy M. (A.L.P.)	W.A.	1968
Henty, Hon. N. H. D. (Lib.)	Tas.	1968	Toohy, J. P. (A.L.P.)	S.A.	1971
Keeffe, J. B. (A.L.P.)	Qld	1971	Turnbull, R. J. D. (Ind.)	Tas.	1968
Kennelly, Hon. P. J. (A.L.P.)	Vic.	1971	Webster, J. J. (C.P.)	Vic.	(b)
Lacey, R. H. (A.L.P.)	Tas.	1971	Wedgwood, Ivy E. (Lib.)	Vic.	1971
Laught, K. A. (Lib.)	S.A.	1971	Wheeldon, J. M. (A.L.P.)	W.A.	1971
Lawrie, A. G. E. (C.P.)	Qld	1971	Willesee, D. R. (A.L.P.)	W.A.	1968
Lillico, A. E. D. (Lib.)	Tas.	1971	Wood, I. A. C. (Lib.)	Qld	1971
McClelland, D. (A.L.P.)	N.S.W.	1968	Wright, R. C. (Lib.)	Tas.	1968

(a) For later changes see Appendix. (b) Subject to Section 15 of the Constitution.

MEMBERS OF THE COMMONWEALTH PARLIAMENT,
1 JANUARY 1966(a)—continued
THE HOUSE OF REPRESENTATIVES
(Triennial Parliaments—Last General Election
30 November 1963)

Speaker:

THE HON. SIR JOHN McLEAY, K.C.M.G.,
M.M., M.P.

Chairman of Committees:

P. E. LUCOCK, M.P.

Leader of the Opposition:

THE HON. A. A. CALWELL, M.P.

<i>Member</i>	<i>Constituency</i>	<i>Member</i>	<i>Constituency</i>
Adermann, Hon. C. F. (C.P.)	Fisher (Q.)	Cramer, Hon. Sir John (Lib.)	Bennelong (N.S.W.)
Allan, A. I. (C.P.)	Gwydir (N.S.W.)	Crean, F. (A.L.P.)	Melbourne Ports (V.)
Anthony, Hon. J. D. (C.P.)	Richmond (N.S.W.)	Cross, M. D. (A.L.P.)	Brisbane (Q.)
Armstrong, A. A., M.C. (C.P.)	Riverina (N.S.W.)	Curtin, D. J. (A.L.P.)	Kingsford-Smith (N.S.W.)
Aston, W. J. (Lib.)	Phillip (N.S.W.)	Daly, F. M. (A.L.P.)	Grayndler (N.S.W.)
Barnard, L. H. (A.L.P.)	Bass (T.)	Davies, R. (A.L.P.)	Braddon (T.)
Barnes, Hon. C. E. (C.P.)	McPherson (Q.)	Davis, F. J., O.B.E. (Lib.)	Deakin (V.)
Bate, H. J. (Lib.)	Macarthur (N.S.W.)	Devine, L. T. (A.L.P.)	East Sydney (N.S.W.)
Beaton, N. L. (A.L.P.)	Bendigo (V.)	Drury, E. N. (Lib.)	Ryan (Q.)
Beazley, K. E. (A.L.P.)	Fremantle (W.A.)	Duthie, G. W. A. (A.L.P.)	Wilmot (T.)
Benson, S. J., R.D. (A.L.P.)	Batman (V.)	England, J. A., E.D. (C.P.)	Calare (N.S.W.)
Birrell, F. R. (A.L.P.)	Port Adelaide (S.A.)	Erwin, G. D. (Lib.)	Ballaarat (V.)
Bosman, L. L. (Lib.)	St. George (N.S.W.)	Failes, L. J. (C.P.)	Lawson (N.S.W.)
Bowen, N. H., Q.C. (Lib.)	Parramatta (N.S.W.)	Fairbairn, Hon. D. E., D.F.C. (Lib.)	Farrer (N.S.W.)
Bridges-Maxwell, C. W. (Lib.)	Robertson (N.S.W.)	Fairhall, Hon. A. (Lib.)	Paterson (N.S.W.)
Brimblecombe, W. J. (C.P.)	Maranoa (Q.)	Falkinder, C. W. J., D.S.O., D.F.C. (Lib.)	Franklin (T.)
Bryant, G. M. (A.L.P.)	Wills (V.)	Forbes, Hon. A. J., M.C. (Lib.)	Barker (S.A.)
Buchanan, A. A. (Lib.)	McMillan (V.)	Fox, E. M. C. (Lib.)	Henty (V.)
Bury, Hon. L. H. E. (Lib.)	Wentworth (N.S.W.)	Fraser, A. D. (A.L.P.)	Eden-Monaro (N.S.W.)
Cairns, J. F. (A.L.P.)	Yarra (V.)	Fraser, J. M. (Lib.)	Wannon (V.)
Cairns, K. M. K. (Lib.)	Lilley (Q.)	Fraser, J. R. (A.L.P.)	Aust. Cap. Terr.
Calwell, Hon. A. A. (A.L.P.)	Melbourne (V.)	Freeth, Hon. G. (Lib.)	Forrest (W.A.)
Cameron, C. R. (A.L.P.)	Hindmarsh (S.A.)	Fulton, W. J. (A.L.P.)	Leichardt (Q.)
Chaney, Hon. F. C., A.F.C. (Lib.)	Perth (W.A.)	Galvin, P. (A.L.P.)	Kingston (S.A.)
Chipp, D. L. (Lib.)	Higinbotham (V.)	Gibbs, W. T. (Lib.)	Bowman (Q.)
Clark, J. J. (A.L.P.)	Darling (N.S.W.)	Gibson, A. (Lib.)	Denison (T.)
Cleaver, R. (Lib.)	Swan (W.A.)	Giles, G. O'H. (Lib.)	Angas (S.A.)
Cockle, J. S. (Lib.)	Warringah (N.S.W.)	Gray, G. H. (A.L.P.)	Capricornia (Q.)
Collard, F. W. (A.L.P.)	Kalgoorlie (W.A.)	Griffiths, C. E. (A.L.P.)	Shortland (N.S.W.)
Connor, R. F. X. (A.L.P.)	Cunningham (N.S.W.)	Hallett, J. M. (C.P.)	Canning (W.A.)
Cope, J. F. (A.L.P.)	Watson (N.S.W.)	Hansen, B. P. (A.L.P.)	Wide Bay (Q.)
Costa, D.E. (A.L.P.)	Banks (N.S.W.)	Harding, E. W. (A.L.P.)	Herbert (Q.)
Courtney, F. (A.L.P.)	Darebin (V.)	Harrison, E. J. (A.L.P.)	Blaxland (N.S.W.)
Coutts, W. C. (A.L.P.)	Griffith (Q.)	Hasluck, Rt. Hon. P. M. C. (Lib.)	Curtin (W.A.)
		Haworth, Hon. W. C. (Lib.)	Isaacs (V.)

(a) For later changes see Appendix.

MEMBERS OF THE COMMONWEALTH PARLIAMENT,
1 JANUARY 1966(a)—continued

<i>Member</i>	<i>Constituency</i>	<i>Member</i>	<i>Constituency</i>
Hayden, W. G. (A.L.P.)	Oxley (Q.)	Minogue, D. (A.L.P.)	West Sydney (N.S.W.)
Holt, Rt. Hon. H. E. (Lib.)	Higgins (V.)	Mortimer, J. (A.L.P.)	Grey (S.A.)
Holten, R. McN. (C.P.)	Indi (V.)	Nelson, J. N. (A.L.P.)	Northern Territory
Howson, Hon. P. (Lib.)	Fawkner (V.)	Nicholls, M. H. (A.L.P.)	Bonython (S.A.)
Hughes, T. E. F., Q.C. (Lib.)	Parkes (N.S.W.)	Nixon, P. J. (C.P.)	Gippsland (V.)
Hulme, Hon. A. S. (Lib.)	Petrie (Q.)	O'Connor, W. P. (A.L.P.)	Dalley (N.S.W.)
Irwin, L. H., M.B.E. (Lib.)	Mitchell (N.S.W.)	Opperman, Hon. H. F. O.B.E. (Lib.)	Corio (V.)
Jack, W. M. (Lib.)	North Sydney (N.S.W.)	Peters, E. W. (A.L.P.)	Scullin (V.)
James, A. W. (A.L.P.)	Hunter (N.S.W.)	Pettitt, J. A. (C.P.)	Hume (N.S.W.)
Jess, J. D. (Lib.)	La Trobe (V.)	Pollard, Hon. R. T. (A.L.P.)	Lalor (V.)
Johnson, L. R. (A.L.P.)	Hughes (N.S.W.)	Reynolds, L. J. (A.L.P.)	Barton (N.S.W.)
Jones, C. K. (A.L.P.)	Newcastle (N.S.W.)	Riordan, Hon. W. J. F. (A.L.P.)	Kennedy (Q.)
Kelly, C. R. (Lib.)	Wakefield (S.A.)	Robinson, I. L. (C.P.)	Cowper (N.S.W.)
Kent Hughes, Hon. Sir Wilfrid, K.B.E., M.V.O., M.C., E.D. (Lib.)	Chisholm (V.)	Sexton, J. C. L. (A.L.P.)	Adelaide (S.A.)
Killen, D. J. (Lib.)	Moreton (Q.)	Shaw, G. W. (C.P.)	Dawson (Q.)
King, R. S. (C.P.)	Wimmera (V.)	Sinclair, Hon. I. McC. (C.P.)	New England (N.S.W.)
Lindsay, R. W. L. (Lib.)	Flinders (V.)	Snedden, Hon. B. M., Q.C. (Lib.)	Bruce (V.)
Luchetti, A. S. (A.L.P.)	Macquarie (N.S.W.)	Stewart, F. E. (A.L.P.)	Lang (N.S.W.)
Lucock, P. E. (C.P.)	Lyne (N.S.W.)	Stokes, P. W. C., E.D. (Lib.)	Maribyrnong (V.)
Mackay, M. G. (Lib.)	Evans (N.S.W.)	Swartz, Hon. R. W. C., M.B.E., E.D. (Lib.)	Darling Downs (Q.)
Mackinnon, E. D. (Lib.)	Corangamite (V.)	Turnbull, W. G. (C.P.)	Mallee (V.)
Maisey, D. W. (C.P.)	Moore (W.A.)	Turner, H. B. (Lib.)	Bradfield (N.S.W.)
McEwen, Rt. Hon. J. (C.P.)	Murray (V.)	Uren, T. (A.L.P.)	Reid (N.S.W.)
McIvor, H. J. (A.L.P.)	Gellibrand (V.)	Webb, C. H. (A.L.P.)	Stirling (W.A.)
McLeay, Hon. Sir John, K.C.M.G., M.M. (Lib.)	Boothby (S.A.)	Wentworth, W.C. (Lib.)	Mackellar (N.S.W.)
McMahon, Hon. W. (Lib.)	Lowe (N.S.W.)	Whitlam, E. G., Q.C. (A.L.P.)	Werriwa (N.S.W.)
Menzies, Rt. Hon. Sir Robert, K.T., C.H., Q.C. (Lib.)	Kooyong (V.)	Whittorn, R. H. (Lib.)	Balaclava (V.)
		Wilson, Sir Keith (Lib.)	Sturt (S.A.)

(a) For later changes see Appendix.

Commonwealth referendums

In accordance with section 128 of the Constitution any proposed law for the alteration of the Constitution, in addition to being passed by an absolute majority of each House of Parliament, must be submitted to a referendum of the electors in each State, and must be approved also by a majority of the electors in a majority of the States and by a majority of all the electors who voted, before it can be presented for Royal Assent. Twenty-four such proposals have so far been submitted to referendums and the consent of the electors has been received in four cases, the first in relation to the election of Senators in 1906, the second and third in respect of State Debts—one in 1910 and the other in 1928—and the fourth in respect of Social Services in 1946. Details of the various referendums and the voting thereon are given in the following pages.

In addition to referendums for alteration of the Constitution, other Commonwealth referendums have been held, the first occasion being in 1898, when a proposed Constitution, embodied in the Federal Constitution Bill, was submitted to the popular vote but failed to receive the statutory vote of 80,000 in New South Wales. On modification of the Bill in the following year the necessary consent was obtained. In 1916 a question was submitted in terms of section 5 of the *Military Service Referendum Act 1916* as to whether the people of Australia were in favour of compulsory overseas military service for the term of the war. The proposal was favoured by a majority of voters in Victoria, Western Australia and Tasmania, and in the Federal Territories, which also participated in this Referendum, but the necessary majority of all votes was not

obtained. Affirmative votes cast amounted to 48.39 per cent of all formal votes. Of the electors on the roll, 82.75 per cent voted. In 1917 another question was submitted. This was prescribed by Regulation 6 of the War Precautions (Military Service Referendum) Regulations 1917 and asked whether the Commonwealth should have power to call up by ballot compulsory reinforcements for the Australian Imperial Force overseas, up to 7,000 per month. Only Western Australia, Tasmania and the Federal Territories voted for the proposal, and affirmative votes, inclusive of those of members of the Forces and crews of transports who voted on this occasion, amounted to only 46.21 per cent of all formal votes. The percentage of electors who voted was 81.34.

Two Bills for alteration of the Constitution were passed during 1965, one to amend the provisions that the number of members of the House of Representatives shall be as nearly as practicable twice the number of Senators (section 24), and the other to repeal section 127—'In reckoning the numbers of the people of the Commonwealth, or of a State or other part of the Commonwealth, aboriginal natives shall not be counted.' In accordance with the provisions of section 128 of the Constitution the proposals were to have been submitted to the electors within six months after the passage of the Bills. The Government, however, decided in February 1966 to defer the holding of the referendums until after the next House of Representatives election.

COMMONWEALTH REFERENDUMS FOR ALTERATION OF THE CONSTITUTION: PROPOSED LAWS AND RESULTS OF VOTING (TO 31 DECEMBER 1965)

On the occasions on which the requisite majority, both of States and of all electors was obtained, the results of voting are shown in *italics*.

Short title of Bill	Date submitted to electors	Powers or other alterations sought	In favour of proposed law	
			Number of States	Percentage of formal voters
<i>Constitution Alteration (Senate Elections) 1906</i>	12 December 1906	To alter from January to July the date on which the term of a senator begins, and to provide for other matters connected with the election of senators	<i>Six</i>	<i>82.65</i>
<i>Constitution Alteration (Finance) 1909</i>	13 April 1910	To vary the financial arrangements between the Commonwealth and the States under the Constitution by providing, <i>inter alia</i> , for specified <i>per capita</i> payments to each State and special payments to Western Australia	Three (Q., W.A., T.)	49.04
<i>Constitution Alteration (State Debts) 1909</i>	13 April 1910	To take over the public debts of the States whenever incurred	<i>Five</i> (all but N.S.W.)	<i>54.95</i>
<i>Constitution Alteration (Legislative Powers) 1910</i>	26 April 1911	To deal with (a) trade and commerce, without any limitations, instead of 'Trade and commerce with other countries, and among the States' only; (b) the control and regulation of corporations of all kinds (except those formed solely for religious, charitable, scientific or artistic purposes and not for the acquisition of gain); (c) labour and employment, including wages and conditions of labour and the settlement of industrial disputes generally, including disputes in relation to employment on State railways; and (d) combinations and monopolies in relation to the production, manufacture, or supply of goods or services	One (W.A.)	39.42
<i>Constitution Alteration (Monopolies) 1910</i>	26 April 1911	To make laws for the Commonwealth to carry on or control an industry or business declared to be the subject of a monopoly and for acquiring for that purpose on just terms any property used in connection with the industry or business	One (W.A.)	39.89
<i>Constitution Alteration (Trade and Commerce) 1912</i>	31 May 1913	As in (a) under (Legislative Powers) Referendum 1910, but excluding intra-State trade and commerce on State Railways	Three (Q., S.A., W.A.)	49.38
<i>Constitution Alteration (Corporations) 1912</i>	31 May 1913	As in (b) under (Legislative Powers) Referendum 1910	Three (Q., S.A., W.A.)	49.33
<i>Constitution Alteration (Industrial Matters) 1912</i>	31 May 1913	To make laws with respect to labour, employment, and unemployment, including the terms and conditions of labour, the rights and obligations of employers and employees, strikes and lockouts, the maintenance of industrial peace and the settlement of industrial disputes	Three (Q., S.A., W.A.)	49.33

COMMONWEALTH REFERENDUMS FOR ALTERATION OF THE CONSTITUTION:
PROPOSED LAWS AND RESULTS OF VOTING (TO 31 DECEMBER 1965)

—continued

Short title of Bill	Date submitted to electors	Powers or other alterations sought	In favour of proposed law	
			Number of States	Percentage of formal voters
<i>Constitution Alteration (Railway Disputes) 1912</i>	31 May 1913	To make laws with respect to conciliation and arbitration for the prevention and settlement of industrial disputes in relation to employment in the railway service of a State	Three (Q., S.A., W.A.)	49.13
<i>Constitution Alteration (Trusts) 1912</i>	31 May 1913	As in (d) under (Legislative Powers) Referendum 1910, but expressly including 'trusts'	Three (Q., S.A., W.A.)	49.78
<i>Constitution Alteration (Nationalization of Monopolies) 1912</i>	31 May 1913	As in (Monopolies) Referendum 1910, but excluding any industry or business carried on by the Government or a public authority of a State	Three (Q., S.A., W.A.)	49.33
<i>Constitution Alteration (Legislative Powers) 1919</i>	13 December 1919	To extend temporarily the legislative powers of the Commonwealth in regard to trade and commerce, corporations, industrial matters and trusts	Three (V., Q., W.A.)	49.65
<i>Constitution Alteration (Nationalization of Monopolies) 1919</i>	13 December 1919	To extend temporarily the legislative powers of the Commonwealth in regard to the nationalization of monopolies	Three (V., Q., W.A.)	48.64
<i>Constitution Alteration (Industry and Commerce) 1926</i>	4 September 1926	To make laws with respect to (a) corporations generally (with certain exceptions); (b) the prevention and settlement of all industrial disputes; (c) the establishment of authorities to regulate industrial matters; (d) investing State authorities with industrial powers; and (e) trusts and combines and industrial associations of employers and employees	Two (N.S.W., Q.)	43.50
<i>Constitution Alteration (Essential Services) 1926</i>	4 September 1926	To make laws for protecting the interests of the public in case of actual or probable interruption of any essential service	Two (N.S.W., Q.)	42.80
<i>Constitution Alteration (State Debts) 1928</i>	17 November 1928	To validate the proposals included in the Financial Agreement between the Commonwealth and States relating to State debts and the borrowing of money by the Commonwealth and the States	Six	74.30
<i>Constitution Alteration (Aviation) 1936</i>	6 March 1937	To make laws with respect to air navigation and aircraft	Two (V., Q.)	53.56
<i>Constitution Alteration (Marketing) 1936</i>	6 March 1937	To make laws under existing powers with respect to marketing without being subject to section ninety-two (freedom of interstate trade) of the Constitution	None	36.26
<i>Constitution Alteration (Post-war Reconstruction and Democratic Rights) 1944</i>	19 August 1944	To empower the Commonwealth for a period of five years after the cessation of hostilities, to make laws with respect to (i) the reinstatement and advancement of members of the fighting forces, and the advancement of dependants of deceased members; (ii) employment and unemployment; (iii) organized marketing of commodities; (iv) uniform company legislation; (v) trusts, combines and monopolies; (vi) profiteering and prices; (vii) production and distribution of goods (no law in respect of primary production to have effect in a State unless approved by that State and no law to discriminate between States or parts of States); (viii) control of overseas exchange and investment, and regulation of the raising of money according to plans approved by the Australian Loan Council; (ix) air transport; (x) uniformity of railway gauges; (xi) national works (with the consent and co-operation of the State concerned); (xii) national health in co-operation with the States; (xiii) family allowances; and (xiv) the people of the aboriginal race. (The proposed law contained provisions to safeguard freedoms of speech, expression and religion, and a provision requiring notice of regulations of a legislative character made under the proposed powers to be given to each senator and each member of the House of Representatives)	Two (S.A., W.A.)	45.99

**COMMONWEALTH REFERENDUMS FOR ALTERATION OF THE CONSTITUTION:
PROPOSED LAWS AND RESULTS OF VOTING (TO 31 DECEMBER 1965)**

—continued

Short title of Bill	Date submitted to electors	Powers or other alterations sought	In favour of proposed law	
			Number of States	Percentage of formal voters
<i>Constitution Alteration (Social Services) 1946</i>	28 September 1946	To make laws for the provision of maternity allowances, widows' pensions, child endowment, unemployment, pharmaceutical, sickness and hospital benefits, medical and dental services (but not so as to authorize any form of civil conscription), benefits to students and family allowances	Six	54.39
<i>Constitution Alteration (Organized Marketing of Primary Products) 1946</i>	28 September 1946	To make laws for the organized marketing of primary products, unrestricted by section ninety-two (freedom of interstate trade) of the Constitution	Three (N.S.W., V., W.A.)	50.57
<i>Constitution Alteration (Industrial Employment) 1946</i>	28 September 1946	To make laws with respect to terms and conditions of employment in industry, but not so as to authorize any form of industrial conscription	Three (N.S.W., V., W.A.)	50.30
<i>Constitution Alteration (Rents and Prices) 1947</i>	29 May 1948	To make laws with respect to rents and prices (including charges)	None	40.66
<i>Constitution Alteration (Powers to deal with Communists and Communism) 1951</i>	22 September 1951	To make such laws with respect to communists and communism as the Parliament considers necessary or expedient for the defence or security of the Commonwealth or for the execution or maintenance of the Constitution or laws of the Commonwealth; and to make a law in terms of the <i>Communist Party Dissolution Act 1950</i> , with certain powers of amendment	Three (Q., W.A., T.)	49.44

The Parliaments of the States and State elections

Pages 52, 61 and 69 of this chapter contain summarized information on the Parliaments of each State, the qualifications for members, the numbers of Houses and members, and salaries payable. For greater detail, including some historical material, reference should be made to Year Books No. 50, pages 69–72, No. 51, page 73, and earlier issues.

With the passage of 'The Elections Act of 1965' by the Queensland House of Assembly Aboriginal inhabitants of Australia and Torres Strait islanders are, from 1 February 1966, qualified to vote as are other British subjects in Queensland, but for them enrolment is not compulsory. This means that Aborigines are now entitled to vote at both Commonwealth and State elections in all States.

State Upper House elections. The following table shows particulars of the voting at the most recent elections for the Upper Houses or Legislative Councils in the States of Victoria, South Australia, Western Australia and Tasmania. In New South Wales members of the Legislative Council are elected at simultaneous sittings of the members of both Houses, in Queensland there has been no Legislative Council since 1922, and in Tasmania three members of the Council are elected annually (but four in each sixth year) and the Council cannot be dissolved as a whole.

STATE UPPER HOUSE ELECTIONS

State	Year of latest election	Electors enrolled—whole State			Contested electorates					
					Electors who voted			Percentage of electors who voted		
		Males	Females	Total	Males	Females	Total	Males	Females	Total
Victoria	1964	800,620	834,691	1,635,311	758,124	785,654	1,543,778	94.7	94.1	94.4
South Australia	1965	n.a.	n.a.	213,377	n.a.	n.a.	149,910	n.a.	n.a.	80.2
Western Australia	1965	202,106	206,356	408,462	n.a.	n.a.	361,752	n.a.	n.a.	92.1
Tasmania	1965	(a)18,967	(a)19,862	(a)38,829	16,312	16,516	32,828	86.0	83.1	84.6

(a) Total electors enrolled in contested divisions.

State Lower House elections. The following table shows particulars of the voting at the most recent election for the Lower House in each State.

STATE LOWER HOUSE ELECTIONS

State	Year of latest election	Electors enrolled—whole State			Contested electorates					
					Electors who voted			Percentage of electors who voted		
		Males	Females	Total	Males	Females	Total	Males	Fe- males	Total
New South Wales	1965	1,098,471	1,158,097	2,256,568	1,018,902	1,064,459	2,083,361	94.4	93.5	93.9
Victoria	1964	800,620	834,691	1,635,311	758,124	785,654	1,543,778	94.7	94.1	94.4
Queensland	1963	416,507	422,816	839,323	388,773	394,261	783,034	94.5	94.1	94.3
South Australia	1965	n.a.	n.a.	562,824	n.a.	n.a.	513,064	n.a.	n.a.	94.6
Western Australia	1965	202,106	206,356	408,462	n.a.	n.a.	309,893	n.a.	n.a.	92.3
Tasmania	1964	96,111	97,307	193,418	91,747	92,824	184,571	95.5	95.4	95.4

Year Book No. 51 and earlier issues contain particulars of the voting at elections for both Upper and Lower State Houses in years prior to those shown above.

Number and salary of members of the legislatures, Australian Parliaments, December 1965

AUSTRALIAN PARLIAMENTS: MEMBERS AND ANNUAL SALARIES
31 DECEMBER 1965

Members in—	Cwlth	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
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NUMBER OF MEMBERS

Upper House	60	60	34	(a)	20	30	19	223
Lower House	124	94	66	78	39	50	35	486
Total	184	154	100	78	59	80	54	709

ANNUAL SALARY

(£)

Upper House	(b)7,000	1,500	(c)5,600	(a)	(d)5,000	(e)5,120	(f)4,600	..
Lower House	(b)7,000	(g)5,300	(c)5,600	(h)6,700	(d)5,000	(e)5,120	(f)4,600	..

(a) Abolished in 1922. (b) Plus expense allowances—Senators, \$2,100; Members of the House of Representatives, city electorates, \$2,200, country electorates, \$2,600. Certain additional allowances are also provided for holders of parliamentary offices, etc. (c) Plus allowances from \$1,700 for metropolitan to \$2,100 for urban, \$2,300 for inner country, and \$2,400 for outer country electorates. (d) Plus allowance of \$1,200 where electorate is less than 50 miles from Adelaide or if a Minister, \$1,600 if more than 50 miles, \$1,900 if more than 200 miles. (e) Plus expense reimbursement ranging from \$1,200 for a metropolitan member to \$1,900 for a north province member. (f) Plus allowance according to area of electorate and distance from the capital varying from \$600 to \$1,100 in the case of the Legislative Council, and from \$1,000 to \$1,850 in the case of the House of Assembly. (g) Plus allowance varying from \$1,500 to \$2,100 according to location of electorate. (h) Plus individual electoral allowances ranging from \$1,100 to \$2,630.

Enactments of the Parliaments

In the Commonwealth all laws are enacted in the name of the Sovereign, the Senate, and the House of Representatives. The subjects with respect to which the Commonwealth Parliament is empowered to make laws are enumerated in the Constitution. In the States other than South Australia and Tasmania laws are enacted in the name of the Sovereign by and with the consent of the Legislative Council (except in Queensland) and Legislative Assembly. In South Australia and Tasmania laws are enacted in the name of the Governor of the State, with the advice and consent of the Parliament in the case of South Australia, and of the Legislative Council and House of Assembly in the case of Tasmania. Generally, assent to Bills passed by the legislatures is given by the Governor-General or State Governor acting on behalf of, and in the name of, the Sovereign. In certain special cases Bills are reserved for the Royal assent. The Parliaments of the States are empowered generally, subject to the Commonwealth Constitution, to make laws in and for their respective States, in all cases whatsoever. Subject to certain limitations they may alter, repeal, or vary their Constitutions. Where a law of a State is inconsistent with a law of the Commonwealth the latter prevails, and the former is to the extent of the inconsistency invalid.

The course of Commonwealth legislation

The actual legislation by the Commonwealth Parliament during 1965 is indicated in alphabetical order in *The Acts of the Parliament of the Commonwealth of Australia passed during the year 1965 in the First Session of the Twenty-fifth Parliament of the Commonwealth, with Appendix, Tables and Index*. A chronological table of Acts passed from 1901 to 1965 showing how they are affected by subsequent legislation or lapse of time is also given, and, further, a table of Commonwealth legislation passed from 1901 to 1965 in relation to the several provisions of the Constitution is furnished in the same volume. Reference should be made to these for complete information.

The Acts passed by the Commonwealth Parliament during the year 1965 are listed hereunder. In many cases the title of the Act indicates the general scope of the Act, but brief explanatory notes have been added where necessary. Appropriate chapters of this Year Book should be referred to for further information which may be available there.

The total enactments of the Commonwealth Parliament for a number of years at fairly even intervals since 1901 show a general increase. Seventeen Acts were passed in 1901, 36 in 1914, 38 in 1927, 87 in 1939, 109 in 1952, and 156 in 1965.

Commonwealth legislation passed during 1965

*Air Force Act 1965 (No. 50).**

Air Navigation (Charges) Act (No. 1) 1965 (No. 107) provided for an increase of ten per cent in the charges for the use of aerodromes and other facilities for air navigation.

Air Navigation (Charges) Act (No. 2) 1965 (No. 125).†

Aliens Act 1965 (No. 12) amended the *Aliens Act 1947-1959* to require aliens registered under the Act to notify the Department of Immigration annually of their address, occupation and marital status (see the chapter Population).

Appropriation Act (No. 3) 1964-65 (No. 15); Appropriation Act (No. 1) 1965-66 (No. 67); Appropriation Act (No. 2) 1965-66 (No. 68).

Appropriation (Special Expenditure) Act (No. 2) 1964-65 (No. 16) appropriated funds, mainly for bush-fire relief, for which no provision was made in the *Appropriation (Special Expenditure) Act 1964-65*.

Audit Act 1965 (No. 126).†

Australian National University Act 1965 (No. 108) abolished the position of Principal of the School of General Studies and provided, instead, for a part-time Deputy Chairman of the Board of the School, widened the field of candidates eligible for election to the Council as students' representative, made some minor administrative changes, and repealed transitional provisions relating to the merging of the Canberra University College with the original Australian National University.

Australian Universities Commission Act 1965 (No. 63) increased to eight the maximum number of members of the Commission.

Banking Act 1965 (No. 128); Bankruptcy, Decimal Currency Act 1965 (No. 128).†

Brigalow Lands Agreement Act 1965 (No. 122) approved a number of variations to the Brigalow Lands Agreement which extended the boundaries of the scheme and gave additional scope to the work. It also provided for an extension of three years to 30 June 1970 of the period in which financial assistance is available to Queensland but left the total amount of such assistance unaltered.

Commonwealth legislation passed during 1965—continued

Broadcasting and Television Act 1965 (No. 38) amended the *Broadcasting and Television Act* 1942–1964 to provide that no person shall obtain more than a five per cent interest in more than two companies licensed to operate commercial television stations.

Broadcasting and Television Act (No. 2) 1965 (No. 120) excepted from the provisions relating to holding interests in licenses interests that were lawfully held prior to 17 December 1964.

Butter Fat Levy Act 1965 (No. 42) imposed a levy on butter fat produced in Australia and used therein for the manufacture of dairy produce.

Butter Fat Levy Act (No. 2) 1965 (No. 129); *Canned Fruits Export Charges Act* 1965 (No. 130).†

Cellulose Acetate Flake Bounty Act 1965 (No. 26) provided for continuation of bounty payments on rayon grade acetate flake for three years from March 1965, and raised the limit payable to £112,000 (\$224,000) but reduced the rate per lb from 7d. (6c) to 6d. (5c).

Christmas Island Act 1965 (No. 131).†

Coal Industry Act 1965 (No. 11) amended the *Coal Industry Act* 1946–1958 to empower the Joint Coal Board to open accounts with other approved banks as well as with the Reserve Bank of Australia.

Commonwealth Banks Act 1965 (No. 132).†

Commonwealth Electoral Act 1965 (No. 48); *Commonwealth Electoral Act* (No. 2) 1965 (No. 70) amended the provisions of the *Commonwealth Electoral Act* 1918–1962 relating to the distribution of States into electoral divisions to provide for greater community of interests in the electors in any division, increased the amount of the deposit to be lodged by candidates, amended the grouping provisions for Senate elections, raised the maximum penalties for failure to enrol or failure to vote, extended the period for return of postal votes to the divisional returning officer, and made other minor amendments to voting procedure.

Conciliation and Arbitration Act 1965 (No. 22) amended the *Conciliation and Arbitration Act* 1904–1964 to provide that the Commonwealth Industrial Court cannot hear an application for an injunction against somebody from committing a breach or non-observance of an award unless it is satisfied that the Conciliation and Arbitration Commission was notified without delay that such breach or non-observance was liable to occur, and that fourteen days or more have passed since the notification was given.

Copper Bounty Act 1965 (No. 80) extended the period of operation of the *Copper Bounty Act* 1958–1963 to 31 December 1966 unless an earlier date of cessation is specified by proclamation.

Currency Act 1965 (No. 95) proclaimed the date for the changeover to decimal currency, continued those provisions of the *Currency Act* 1963 relating to coinage, and set out detailed provisions for the transitional period and for machine conversion. (See the chapter *Private Finance*; see also *Decimal Currency Board Act* 1965 below).

Customs Act 1965 (No. 29); *Customs Act* (No. 2) 1965 (No. 82); *Customs Tariff* 1965 (No. 28); *Customs Tariff* (No. 1) 1965 (No. 7); *Customs Tariff* (No. 2) 1965 (No. 81); *Customs Tariff* (No. 3) 1965 (No. 84); *Customs Tariff* (Canada Preference) 1965 (No. 8); *Customs Tariff* (Dumping and Subsidies) Act 1965 (No. 117); *Customs Tariff* (New Zealand Preference) 1965 (No. 9); *Customs Tariff Validation Act* 1965 (No. 31); *Customs Tariff Validation Act* (No. 2) 1965 (No. 113).

Customs Act (No. 3) 1965 (No. 133); *Customs Tariff* 1966 (No. 134).†

Dairy Produce Export Charge Repeal Act 1965 (No. 45); *Dairy Produce Export Control Act* 1965 (No. 43); *Dairy Produce Levy Repeal Act* 1965 (No. 46); *Dairy Produce Research and Sales Promotion Act* 1965 (No. 44).‡

Decimal Currency Board Act 1965 (No. 94) replaced that part of the *Currency Act* 1963 which set up the Decimal Currency Board and gave continuing effect to its provisions.

Defence Act 1965 (No. 51) provided that all members of the defence forces, whether volunteers or those called up for compulsory service, will be liable for service either within or beyond the territorial limits of Australia.

Defence Forces Retirement Benefits Act 1965 (No. 25) provided that pre-1959 Act contributors whose pension entitlements are increased may elect not to pay additional contributions.

Defence Forces Retirement Benefits Act (No. 2) 1965 (No. 98) extended to members of the Defence Forces a number of the changes in retirement provisions included in the *Superannuation Act* (1965) (see p.75).

Commonwealth legislation passed during 1965—continued

Defence Forces Retirement Benefits Act (No. 3) 1965 (No. 135).†

Defence (Re-establishment) Act 1965 (No. 54) provided for the protection of the interests of national servicemen in relation to their reinstatement in civil employment and in relation to mortgages, debts, and other obligations they had entered into before becoming liable for national service, and for the facilitation of the re-establishment of national servicemen in civil life on completion of their period of continuous national service.

Diesel Fuel Tax Act (No. 1) 1965 (No. 60); Diesel Fuel Tax Act (No. 2) 1965 (No. 61); Diesel Fuel Taxation (Administration) Act 1965 (No. 62); provided for an increase in the rate of tax on diesel fuel from 1s. (10c) to 1s. 3d. (12c). per gallon.

Dried Fruits Export Charges Act 1965 (No. 136); Egg Export Charges Act 1965 (No. 137).†

Estate Duty Assessment Act 1965 (No. 32) amended the *Estate Duty Assessment Act 1914–1963* to exempt gifts to the Winston Churchill Memorial Trust from estate duty.

Estate Duty Assessment Act (No. 2) 1965 (No. 138); Excise Act 1965 (No. 139); Excise Tariff (No. 2) 1965 (No. 140).†

Excise Tariff 1965 (No. 83).

Export Payments Insurance Corporation Act 1965 (No. 74) amended the *Export Payments Insurance Corporation Act 1956–1964* to authorize the Corporation to insure certain types of Australian investments in overseas countries against non-commercial risks and provided for an increase of £1 million (\$2 million) in the capital of the Corporation, an increase of £25 million (\$50 million) in the maximum contingent liability which the corporation can accept under contracts of insurance and guarantee, and a reduction of the minimum value of export transactions in respect of which the Corporation may provide guarantees (see the chapters Oversea Transactions and Private Finance).

Foot and Mouth Disease Act 1965 (No. 90) extended the provisions of the *Foot and Mouth Disease Act 1961* to include two exotic animal diseases which are clinically indistinguishable from foot and mouth disease.

Gold Mining Industry Assistance Act 1965 (No. 34) extended the period of operation of the *Gold Mining Industry Assistance Act 1954–1965* for five years and liberalized subsidy payments (see the chapter Mineral Industry).

Homes Savings Grant Act 1965 (No. 6) widened the scope of the *Homes Savings Grant Act 1964* to make certain types of young persons, previously excluded, eligible to receive a grant and to allow money saved and used in a number of ways to be treated as acceptable savings (see the chapter Housing and Building).

Honey Industry Act 1965 (No. 71) gave the Australian Honey Board power to acquire stocks of honey for orderly marketing purposes and allowed the Board to borrow from the Reserve Bank of Australia under a Commonwealth guarantee, and *Honey Levy Act (No. 1) 1965 (No. 72);* and *Honey Levy Act (No. 2) 1965 (No. 73)* exempted small producers from payment of the levy.

Honey Levy Act (No. 1A) 1965 (No. 141); Honey Levy Act (No. 2A) 1965 (No. 142).†

Housing Loans Insurance Act 1965 (No. 10) established a Housing Loans Insurance Corporation to insure lenders against losses arising out of the making of loans for housing (see the chapter Housing and Building).

Income Tax Act 1965 (No. 104); Income Tax Act (No. 2) 1965 (No. 116); Income Tax and Social Services Contribution Assessment Act 1965 (No. 33); Income Tax Assessment Act 1965 (No. 103).

Income Tax Assessment Act (No. 2) 1965 (No. 143).†

Income Tax (International Agreements) Act 1965 (No. 105); Income Tax (Non-resident Dividends) Act 1965 (No. 106).

Indus Basin Development Fund Supplemental Agreement Act 1965 (No. 2) provided for payment of an additional contribution of \$US10,460,000 (\$A9,339,286) to the Indus Basin development fund.

Insurance Act 1965 (No. 144).†

International Monetary Agreements Act 1965 (No. 24) gave approval to Australia consenting to an increase of \$US100 million in Australia's quota in the International Monetary Fund.

International Wheat Agreement (Extension) Act 1965 (No. 14) approved Australia's acceptance of the protocol extending the period of operation of the International Wheat Agreement 1962, for one year.

† See footnote, page 75.

Commonwealth legislation passed during 1965—continued

Judges Remuneration Act 1965 (No. 92) increased by £1,500 (\$3,000) per annum the salaries of Judges of the Supreme Courts of the Northern Territory and the Australian Capital Territory, of the Bankruptcy Court, and of the Arbitration Commission.

Judiciary Act 1965 (No. 91) increased the salaries of justices of the High Court of Australia by £2,000 (\$4,000) a year.

Jury Exemption Act 1965 (No. 13) exempted certain classes of persons from jury service in States and Commonwealth Territories and specified the cases in which Commonwealth public servants may perform such service.

Life Insurance Act 1965 (No. 145).†

Live-stock Slaughter Levy Act 1965 (No. 76) provided that the existing levy on sheep and lambs may be used for the purposes of research as well as for meat market development.

Loan (Housing) Act 1965 (No. 55) authorized the raising and expending of up to £51 million (\$102 million) for the purposes of housing.

Loan (War Service Land Settlement) Act 1965 (No. 59) authorized the raising and expending of £8.1 million (\$16.2 million) for assistance to the States of Western Australia, South Australia and Tasmania in connection with War Service Land Settlement.

Matrimonial Causes Act 1965 (No. 99) amended the *Matrimonial Causes Act 1959* so as to remove some minor anomalies in the principal Act.

Meat Industry Act 1965 (No. 77); *Meat Research Act 1965* (No. 75) provided for the extension of the current beef research scheme to cover beef, mutton, and lamb research.

National Health Act 1965 (No. 100) relaxed some of the restrictions on the eligibility of pensioners for pensioner medical benefits.

National Health Act (No. 2) 1965 (No. 146).†

Native Members of the Forces Benefits Act 1965 (No. 109) was a machinery measure passed to place Aboriginal natives who had enlisted in special Torres Strait Island units during the 1939–45 War on the same footing as Torres Strait Islanders who enlisted for service in these units.

Nauru Act 1965 (No. 115) provided a detailed scheme of government for Nauru. It established a Legislative Council consisting of the Administrator, nine elected Nauruan members, and five official members, and an Executive Council consisting of the Administrator and two elected and two official members of the Legislative Council.

National Service Act 1965 (No. 52); *Naval Defence Act 1965* (No. 53).*

Navigation Act 1965 (No. 1) amended the *Navigation Act 1912–1961* in respect of certain minor matters concerning the employment of seamen and to permit of greater flexibility in the survey requirements for ships on inland waters.

Northern Territory (Administration) Act 1965 (No. 69) amended the *Northern Territory (Administration) Act 1910–1962* to provide that the Administrator be withdrawn from the Legislative Council for the Territory both as a member and as President of the Council and that the Legislative Council elect the President from among the elected and non-official members of the Council, and changed the name of the Wards Benefits Trust Fund to the Aborigines Benefits Trust Fund.

Parliamentary Presiding Officers Act 1965 (No. 5) provided that if the Presiding Officer of either House of the Parliament resigns his office or his seat he shall be deemed to continue to be the Presiding Officer until a new Presiding Officer is chosen, and that if a Presiding Officer dies the Chairman of Committees shall act until a new Presiding Officer is chosen. Where either House of the Parliament is dissolved the Presiding Officer shall continue to act until a Presiding Officer is chosen by the new House.

Parliamentary Retiring Allowances Act 1965 (No. 35) amended the *Parliamentary Allowances Act 1948–1964* to remove some technical difficulties from the administration of the Act, to vest the management of the Fund in the Parliamentary Retiring Allowances Trust, and to make some minor amendments to facilitate the administration of the legislation.

Parliamentary Retiring Allowances (Decimal Currency) Act 1965 (No. 147).†

Payroll Tax Assessment Act 1965 (No. 114).

Payroll Tax Assessment Act (No. 2) 1965 (No. 148).†

Pollution of the Sea by Oil Act 1965 (No. 4) amended the *Pollution of the Sea by Oil Act 1960* so as to extend the types and sizes of vessels to which the Act applies and to extend prohibited zones.

Commonwealth legislation passed during 1965—continued

Post and Telegraph Act 1965 (No. 149); *Post and Telegraph Rates Act* 1965 (No. 150).†

Poultry Industry Assistance Act 1965 (No. 21); *Poultry Industry Levy Act* (No. 19); *Poultry Industry Levy Collection Act* 1965 (No. 20) provided for a stabilization scheme for the egg industry to be financed by a levy in respect of hens kept for commercial purposes which have reached six months of age.

Processed Milk Products Bounty Act 1965 (No. 47) extended the bounty on exports of processed milk products for two years and provided a maximum amount of £400,000 (\$800,000) for this purpose for each of the years 1965–66 and 1966–67.

Public Accounts Committee Act 1965 (No. 79); *Public Works Committee Act* 1965 (No. 78) raised the limit of expenditure on allowances of the Joint Committee of Public Accounts and of the Parliamentary Standing Committee on Public Works from £5,000 (\$10,000) to £10,000 (\$20,000).

Pyrites Bounty Act 1965 (No. 37) extended the operation of the *Pyrites Bounty Act* 1960 for a period of at most six months to 31 December 1965 unless an earlier date of cessation is specified by proclamation; *Pyrites Bounty Act* (No. 2) 1965 (No. 119) further extended the operation of the *Pyrites Bounty Act* 1960–1965 until 30 June 1969.

Pyrites Bounty Act (No. 3) 1965 (No. 151).†

Raw Cotton Bounty Act 1965 (No. 3) amended the *Raw Cotton Bounty Act* 1963 to provide for the bounty to be paid on a seasonal instead of a calendar year basis.

Referendum (Constitution Alteration) Act 1965 (No. 49) was a machinery measure consequent on the amendments made to the *Commonwealth Electoral Act* (see p. 71).

Referendum (Constitution Alteration) Act (No. 2) 1965 (No. 121) simplified voting procedure at future referendums.

Repatriation Act 1965 (No. 64) introduced a new category of war pension, the intermediate rate, extended the provisions relating to eligibility for payment of sustenance allowance, extended the eligibility of student children for medical treatment up to the age of twenty-one years and extended service pension benefits in a number of ways (see the chapter *Repatriation*).

Repatriation (Special Overseas Service) Act 1965 (No. 110) extended the operation of the *Repatriation (Special Overseas Service) Act* 1962–1964 to members of the forces serving outside Australia whose service involves them in hazards additional to those of normal peace time service, whether allotted for duty in a special area or not.

Reserve Bank Act 1965 (No. 96) amended the provisions of the *Reserve Bank Act* 1959 relating to the note issue to authorize the issue of decimal currency notes on and after 14 February 1966.

Royal Australian Air Force Veterans' Residences Act 1965 (No. 124) extended the classes of persons eligible for accommodation in residences provided by the trustees to include widows, mothers of deceased former unmarried members, and former female members provided they are also eligible for benefits under the *War Service Homes Act*.

Sales Tax (Exemptions and Classifications) Act 1965 (No. 30) revised the schedule of sales tax exemptions to accord with the revised *Customs Tariff* 1965.

Science Laboratories Act 1965 (No. 39) provided for the granting of assistance of up to £14,858,700 (\$29,717,400) to the States for purposes in connection with laboratories and equipment for use in teaching science in secondary schools.

Seamen's War Pensions and Allowances Act 1965 (No. 65) provided for payment of a new intermediate rate of pension between the special rate and the general (100 per cent) rate.

Social Services Act 1965 (No. 57) extended benefits payable under the Act (see the chapter *Welfare Services*).

Social Services Act (No. 2) 1965 (No. 152).†

States Grants Act 1965 (No. 88); *States Grants (Advanced Education) Act* 1965 (No. 102); *States Grants (Petroleum Products) Act* 1965 (No. 27); *States Grants (Research) Act* 1965 (No. 93); *States Grants (Special Assistance) Act* 1965 (No. 89); *States Grants (Technical Training) Act* 1965 (No. 41); *States Grants (Petroleum Products) Act* (No. 2) 1965 (No. 153).†

Stevedoring Industry Act 1965 (No. 66) transferred the power to recruit waterside workers from the Waterside Workers' Federation and authorized the Minister for Labour and National Service, where he is satisfied that circumstances warrant it, to ask the Conciliation and Arbitration Commission to make an investigation to determine whether the conduct of the Federation has been such as to justify deregistration action.

† See footnote, page 75.

Commonwealth legislation passed during 1965—continued

Sulphuric Acid Bounty Act 1965 (No. 36) extended the operation of the *Sulphuric Acid Bounty Act* 1954–1960 for a further maximum period of six months to 31 December 1965 unless an earlier date of cessation is specified by proclamation.

Sulphuric Acid Bounty Act (No. 2) 1965 (No. 118) further extended the operation of the *Sulphuric Acid Bounty Act* 1954–1965 until 30 June 1969.

Superannuation Act 1965 (No. 97) provided for the surplus reported in the eighth quinquennial investigation of the Commonwealth Superannuation Fund to be distributed to eligible contributors and pensioners.

Superannuation Act (No. 2) 1965 (No. 154).†

Supply Act (No. 1) 1965–66 (No. 17); *Supply Act* (No. 2) 1965–66 (No. 18).

Taxation Administration Act 1965 (No. 155).†

Temple Society Trust Fund Act 1965 (No. 112) clarified the administration of the Temple Society Trust Fund.

Tobacco Charge Act (No. 1) 1965 (No. 86); *Tobacco Industry Act* 1965 (No. 87); *Tobacco Marketing Act* 1965 (No. 85) established an Australian Tobacco Board and implemented a stabilization plan for the Australian tobacco growing industry (see the chapter Rural Industry).

Trade Practices Act 1965 (No. 111) was designed to preserve competition in Australian trade and commerce to the extent required by the public interest. It provides that restrictive agreements and practices shall be examined on a case to case approach by an independent Trade Practices Tribunal. Collusive tendering and collusive bidding are prohibited, and examinable agreements cover agreements not to compete in prices, other terms and conditions of dealing, concessions allowable, market zones of operation, and the persons dealt with. Examinable practices are the obtaining of a discriminatory price advantage by a buyer, the forcing by a seller of another person's product on a buyer, inducing in pursuance of an agreement a refusal to deal with someone, and monopolization. Certain agreements (e.g. the working conditions of employees, compliance with standards approved by the Standards Association of Australia, and restrictions to protect the goodwill of a business upon its sale) are exempted from the provisions of the Act. A Commissioner of Trade Practices shall be appointed to maintain a Register of Trade Agreements and to bring agreements and practices before the Tribunal for examination. There is also provision for a Review Division of the Tribunal to handle appeals. The Act also repealed the Australian Industries Preservation Act, which it supersedes.

Universities (Financial Assistance) Act 1965 (No. 40) amended the *Universities (Financial Assistance) Act* 1963–1964 to increase the capital grants to universities, to provide increases in recurrent costs resulting from acceptance of the increases in academic salaries recommended in the Eggleston report, and to support higher fees for part-time academic staff (see the chapter Education, Cultural Activities and Research).

Universities (Financial Assistance) Act (No. 2) 1965 (No. 101) provided grants for capital works and recurrent costs of medical teaching hospitals.

Weipa Development Agreement Act 1965 (No. 123) approved an agreement between the Commonwealth and the State of Queensland for the provision of financial assistance to the State for harbour works at Weipa in North Queensland.

Western Australia (South-west Region Water Supplies) Agreement Act 1965 (No. 23) approved an agreement between the Commonwealth and the State of Western Australia for financial assistance by the Commonwealth equivalent to half the total expenditure on the provision of water supplies to the south-west region of Western Australia, the aggregate assistance not to exceed £5.25 million (\$10.5 million).

Wheat Industry Stabilization Act 1965 (No. 156).†

Wheat Tax Act 1965 (No. 58).

Wool Reserve Prices Plan Referendum Act 1965 (No. 56) provided for a referendum to ascertain whether the wool-growers of Australia approved the proposed Reserve Price Plan for Australian wool sold at auction.

* These Acts make provisions for Navy, Air Force, and National Service Personnel similar to those embodied in the Defence Act relative to service outside Australia. † These Acts were machinery measures consequential to the changeover to decimal currency. ‡ These Acts were machinery measures consequential to the *Butter Fat Levy Act* 1965.

Cost of parliamentary government

The table below shows, in broad groups, the expenditure incurred in the operation of the parliamentary system in Australia, comprising the Governor-General and Governors, the Ministries, the Upper and Lower Houses of Parliament, and electoral activities; *they do not attempt to cover the expenditure on Commonwealth and State administration generally.* Only broad groups are shown, but even these are not entirely comparable because of differences in accounting procedures and in the presentation of accounts. A very large part of the expenditure under the head of Governor-General or Governor represents official services entirely outside the Governor's personal interest, carried out at the request of the Government. The item includes salaries of Government House staffs and maintenance of residences, official establishments, grounds, etc., and expenditure on capital works and services.

COST OF PARLIAMENTARY GOVERNMENT, 1964-65

(\$'000)

Expenditure group	Cwlth	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
Governor-General or Governor(a) . . .	(b) 443	119	194	113	103	161	115	1,247
Ministry(c) . . .	699	77	83	77	36	74	74	1,121
Parliament—								
Upper House(d) . . .	601	145	252	..	135	225	110	1,468
Lower House(d) . . .	1,217	772	461	606	273	372	220	3,921
Both Houses(e) . . .	2,051	720	576	333	371	391	105	4,547
Miscellaneous(f) . . .	1,141	165	94	60	74	33	46	1,613
Total, Parliament . . .	5,011	1,802	1,384	998	853	1,021	481	11,549
Electoral(g) . . .	2,761	426	230	111	162	236	60	3,986
Royal Commissions, Select Committees, etc.	25	2	103	..	23	7	11	170
Grand total . . .	8,939	2,426	1,995	1,299	1,177	1,498	740	18,074

(a) Salaries and other expenses, including maintenance of house and grounds. (b) Includes official establishments, \$44,000. (c) Salaries as ministers, and travelling and other expenses. (d) Allowances to members (including ministers' salaries as members), travelling and other expenses. (e) Government contribution to Members' Superannuation Funds, printing, reporting staff, library, etc. (f) Services, furniture, stores, etc. (g) Salaries, cost of elections, etc.

COST OF PARLIAMENTARY GOVERNMENT, 1960-61 TO 1964-65

Year	Cwlth	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
TOTAL (\$'000)								
1960-61 . . .	6,480	2,165	1,497	1,165	836	1,073	561	13,778
1961-62 . . .	7,417	2,429	1,740	1,152	941	1,260	578	15,518
1962-63 . . .	7,031	2,019	1,648	1,259	926	1,240	619	14,742
1963-64 . . .	8,015	2,112	1,837	1,292	1,019	1,308	670	16,252
1964-65 . . .	8,939	2,426	1,995	1,299	1,177	1,498	740	18,074

PER HEAD OF POPULATION (\$)

Year	Cwlth	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
1960-61 . . .	0.62	0.56	0.52	0.78	0.88	1.47	1.60	1.32
1961-62 . . .	0.70	0.62	0.59	0.76	0.96	1.69	1.62	1.47
1962-63 . . .	0.65	0.50	0.54	0.81	0.92	1.62	1.71	1.37
1963-64 . . .	0.72	0.52	0.59	0.82	1.00	1.68	1.83	1.48
1964-65 . . .	0.79	0.58	0.63	0.81	1.13	1.88	2.01	1.61

Commonwealth Government Departments

In Year Book No. 49 (pp. 87-98) a list appears of the Commonwealth Government Departments, giving particulars for each Department of the principal matters dealt with and the Acts administered by the Minister concerned as at the end of 1962, and changes made during 1963 are shown on page 83 of Year Book No. 50. For a list of current Acts administered *see* the *Commonwealth Directory* and pages 4833-40 of *Commonwealth of Australia Gazette* No. 87 of 1965.

CHAPTER 4

LAND TENURE AND SETTLEMENT

Disposal of Crown lands

Land legislation and tenures

The following sections contain figures showing the extent of the different land tenures in the several States and Territories, classified under broad headings indicating the nature of the tenure, together with some general descriptive matter. Information in greater detail, descriptions of the land tenure systems of the several States and the internal Territories, and conspectuses of land legislation in force and of the systems of land tenure were provided in Year Book No. 48 and previous issues (*see also* Year Book No. 50, page 85 and List of Special Articles, etc., preceding General Index to this Volume).

Free grants and reservations

Provision exists in all States except Tasmania for the disposal of Crown lands for public purposes by free grants, and in all States for the temporary and/or permanent reservation of Crown lands for public purposes. In the Northern Territory any Crown lands not subject to any right of, or contract for, purchase may be resumed for public purposes, and the whole or any portion of the lands resumed may be reserved for that purpose. In the Australian Capital Territory, under the *Seat of Government (Administration) Act* 1910, Crown lands may not be sold or disposed of for any estate in freehold except in pursuance of some contract entered into before the commencement of the Act.

AREAS OF CROWN LANDS RESERVED: STATES AND TERRITORIES, 1960 TO 1964 (^{'000 acres})

Year	N.S.W. (a)	Vic. (b)	Qld (b)	S.A. (a)	W.A. (a)	N.T. (a)	Total (c)
1960 . . .	15,956	8,642	25,002	22,747	59,860	59,591	191,798
1961 . . .	15,877	8,646	25,006	22,750	59,885	59,590	191,754
1962 . . .	15,883	8,783	25,126	22,743	68,672	59,595	200,802
1963 . . .	15,958	8,810	25,053	22,754	74,353	59,663	206,591
1964 . . .	15,931	8,847	25,234	22,764	76,450	60,903	210,129

(a) At 30 June. (b) At 31 December. (c) Excludes Tasmania, for which details are not available, and the Australian Capital Territory.

The purposes for which areas were reserved are given hereunder for 1964.

New South Wales. For travelling stock, 4,979,058 acres; forest reserves, 1,544,603 acres; water and camping reserves, 765,407 acres; mining reserves, 1,039,403 acres; for recreation and parks, 713,163 acres; other reserves, 6,889,490 acres; total, 15,931,124 acres.

Victoria. For roads, 1,707,444 acres; water reserves, 315,416 acres; agricultural colleges, 8,434 acres; forest and timber reserves, 5,754,803 acres; mallee reserves, 410,000 acres; other reserves, 650,460 acres; total, 8,846,557 acres.

Queensland. Timber reserves, 2,318,615 acres; for State forests and national parks, 6,894,174 acres; Aboriginal reserves, 6,637,482 acres; for streets, surveyed roads and stock routes, 3,958,202 acres; general reserves, 5,425,289 acres; total, 25,233,762 acres.

South Australia. Total area of surveyed roads, railways and other reserves, 22,764,075 acres, including 18,833,822 acres set apart as Aboriginal reserves.

Western Australia. For State forests, 4,459,038 acres; timber reserves, 1,844,865 acres; other reserves 70,146,097 acres; total, 76,450,000 acres.

Northern Territory. For Aboriginal, defence and public requirements, 60,903,285 acres.

Conditional and unconditional purchases of freehold

Crown lands in the States may be disposed of by unconditional purchase at public auction or by certain other forms of purchase (for details see Year Book No. 48, pages 91-2), and conditional purchases of various types may also be made. In the Northern Territory only 0.1 per cent of the total area is alienated, the remainder being held under lease or licence, or reserved for various purposes or unoccupied. In the Australian Capital Territory, about 18 per cent of the area is alienated or in process of alienation in consequence of contracts existing prior to the establishment of the Territory.

Leases and licences

Well over half the area of the States of New South Wales and South Australia and of the two Territories and more than four-fifths of that of Queensland are occupied under some form of lease or licence. In Victoria, only about one-tenth of the area is leased or licensed, more than half being alienated; in Western Australia, more than one-third is leased or licensed, most of the remainder being unoccupied; and in Tasmania only one-twelfth is leased or licensed, while about half the area of the State is occupied by the Crown or unoccupied, and the remainder alienated. Areas leased or licensed in the States are held under Crown lands Acts, closer settlement Acts, mining Acts, etc., and in the Territories under various Ordinances.

Land Acts and Ordinances. The types of lease and licence which obtain under land legislation cover a wide range, and vary with each State or Territory. The following are examples: grazing or pastoral, settlement and closer settlement, settlement purchase, conditional and conditional purchase, perpetual and Crown; however, the variations of these forms and the special forms of lease and licence which exist would extend this list considerably. Details of the various types in existence are given in Year Book No. 48, pages 93-4, and some detail is included in the tables on pages 82-5 of this chapter.

**AREAS OCCUPIED UNDER LEASE OR LICENCE OTHER THAN MINING AND
FORESTRY: STATES AND TERRITORIES, 1960 TO 1964**

('000 acres)

Year	N.S.W. (a)	Vic.	Qld	S.A. (a)	W.A. (a)	Tas. (a)	N.T. (a) (b)	A.C.T. (a) (b)	Total
1960 .	113,359	7,188	366,277	145,377	223,532	1,090	179,021	293	1,036,137
1961 .	111,065	6,459	366,279	145,752	227,702	1,073	179,049	293	1,037,672
1962 .	111,809	5,542	364,928	146,889	235,914	1,092	174,102	292	1,040,568
1963 .	110,066	5,936	364,140	146,807	243,976	1,032	178,017	289	1,050,263
1964 .	111,386	6,147	367,209	146,382	242,309	1,062	191,436	285	1,066,216

(a) Year ended 30 June. (b) Leases and licences for all purposes.

Mining Acts and Ordinances. In addition to the lands held under lease or licence under land legislation, there are also areas occupied under mining Acts for the purpose of prospecting or mining for gold and other minerals. Details of the various types of mining lease and licence are given in Year Book No. 48, pages 94-5.

**AREAS OCCUPIED UNDER MINING ACTS AND ORDINANCES: STATES AND
TERRITORIES, 1960 TO 1964**

('000 acres)

Year	N.S.W. (a)	Vic.	Qld (b)	S.A. (a) (b)	W.A. (c)	Tas. (b)	N.T.	Total (d)
1960 . .	310	47	2,127	1,852	168	46	36	4,586
1961 . .	321	66	2,184	1,176	155	52	36	3,990
1962 . .	492	55	2,168	5,364	166	45	38	8,328
1963 . .	425	46	2,274	7,894	201	44	62	10,946
1964 . .	956	50	2,187	7,894	221	42	61	11,411

(a) Year ended 30 June. (b) Excludes lands held under miners' rights and dredging claims. (c) Excludes holdings under miners' rights. (d) Excludes Australian Capital Territory, included in previous table.

Oil prospecting or exploring

The legislation relating to the search for petroleum differs from State to State, and the terminology of, and the conditions applying to, the forms of authorization differ accordingly. The figures below relate to the exploratory stage of operations.

**AREAS OCCUPIED UNDER AUTHORITIES TO PROSPECT OR EXPLORE FOR
PETROLEUM: STATES AND NORTHERN TERRITORY, 1960 TO 1964**

('000 acres)

Year	N.S.W. (a)	Vic.	Qld	S.A. (a)	W.A.	N.T.	Total
1960 .	121,636	34,703	517,650	207,217	402,830	49,008	1,333,044
1961 .	17,139	34,703	496,915	201,521	394,071	70,543	1,214,892
1962 .	127,658	53,310	563,795	199,409	471,856	67,366	1,483,394
1963 .	175,026	53,345	464,567	228,235	441,795	160,498	1,523,466
1964 .	156,543	53,345	379,562	228,235	529,594	147,839	1,495,118

(a) Year ended 30 June.

Closer settlement and war service settlement**Closer settlement**

Particulars of the methods of acquisition and disposal of land for the closer settlement of civilians and returned service personnel (1914-18 War) in the several States are given in issues of the Year Book up to No. 22 (*see* No. 22, pages 163-9), and the results of the operations of the several schemes have appeared in subsequent issues in considerable detail. However, the amalgamation in some States of closer settlement records with those of other authorities has since made it impossible to obtain up-to-date figures for those States and for Australia as a whole. Page 96 of Year Book No. 48 contains particulars as at 30 June 1960 of the areas and costs for those States for which separate information is available.

War Service Land Settlement Scheme

The War Service Land Settlement Scheme provides for the settlement on the land of eligible ex-servicemen from the 1939-45 War and the Korea-Malaya operations. Finance for capital expenditure under the scheme in South Australia, Western Australia and Tasmania and for special loans to New South Wales and Victoria is provided through Loan (War Service Land Settlement) Acts. Finance for other aspects of the scheme in all States is provided by annual parliamentary appropriation. The *States Grants (War Service Land Settlement) Act 1952* provides that the responsible Commonwealth Minister may make grants of financial assistance to the States under such terms as he may from time to time determine.

New South Wales, Victoria and Queensland agreed, at the inception of the scheme, to find their own finance for the acquisition and development of properties. In 1954 Queensland abandoned the scheme and made available for general settlement all unallotted lands held under it. Detailed information about the agreements and the methods of operation and administration of the scheme are contained in earlier Year Books (*see* List of Special Articles, etc., preceding General Index to this volume).

WAR SERVICE LAND SETTLEMENT: SUMMARY, STATES, TO 30 JUNE 1965

State	Land acquired	Farms allotted		Farms in course of development		Other
	acres	no.	acres	no.	acres	acres
New South Wales .	9,094,021	3,047	9,094,021	..	..	..
Victoria . . .	1,181,599	3,048	1,181,599	..	..	..
Queensland . .	398,524	470	218,640	..	..	(a) 179,884
South Australia .	755,873	1,022	687,772	..	..	(b) 68,101
Western Australia .	2,053,972	1,010	1,905,475	..	..	(b) 148,497
Tasmania . . .	449,629	547	431,000	11	12,250	(b) 6,379
Total . . .	13,933,618	9,144	13,518,507	11	12,250	402,861

(a) War Service Land Settlement was discontinued in 1954, and unallotted lands were made available for general settlement. (b) Includes land disposed of outside the scheme and discrepancies to be corrected upon survey.

**WAR SERVICE LAND SETTLEMENT: COMMONWEALTH EXPENDITURE, STATES
TO 30 JUNE 1965**
(\$'000)

Advances to States	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
For acquisition of land . . . . .	..	..	..	6,836	7,092	5,060	18,988
For development and improvement of land . . . . .	..	..	..	29,748	39,532	33,428	102,708
Special loans	13,542	14,398	..	..	..	..	27,940
Commonwealth contributions to excess cost over valuation	1,274	12,632	232	4,466	1,716	298	20,618
To provide credit facilities to settlers . . . . .	..	..	..	27,008	48,148	11,234	86,390
For remission of settlers' rent and interest	870	378	72	624	1,062	412	3,418
For payment of living allowances to settlers	2,020	2,432	326	832	960	366	6,936
For operation and maintenance of irrigation projects . . . . .	..	..	..	2,276	32	8	2,316
Loss of advances	432	14	652	104	364	44	1,610
Cost of administration of credit facilities . . . . .	..	..	..	1,152	1,844	484	3,480
Total	18,138	29,854	1,282	73,046	100,750	51,334	274,404

Loans and Allowances (Agricultural Occupations) Scheme

Full details of the measures taken for the re-establishment of ex-servicemen in rural occupations were given in earlier Year Books (*see* List of Special Articles, etc., preceding General Index to this volume). These measures provide for a scheme of loans and allowances to assist ex-servicemen in establishing themselves in agricultural occupations. The loans are made to eligible ex-servicemen for the purchase of land, effecting improvements on land, the acquisition of tools of trade, livestock, plant or equipment, the establishment of a co-operative business with other persons, reduction or discharge of a mortgage, bill of sale, etc. At 30 June 1965, 14,307 loans had been approved, and advances amounting to \$20,355,298 had been made. The allowances are payable only in respect of the period during which the income derived from the occupation by the ex-serviceman concerned is considered inadequate. At 30 June 1965, 16,114 applications for allowances had been made, and the total amount paid in allowances was \$4,553,194.

Year Book No. 48 (page 98) contains details of the applications received and approved and the amounts involved for the individual States and Territories to 30 June 1961. There has been little subsequent change.

War Service Land Settlement Branch—Total expenditure

The following table shows the total expenditure on various projects by the War Service Land Settlement Branch to 30 June 1965.

**COMMONWEALTH WAR SERVICE LAND SETTLEMENT BRANCH: EXPENDITURE
STATES AND TERRITORIES TO 30 JUNE 1965**
(\$'000)

Project	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total expenditure	Receipts and re-payments	Net expenditure
War Service Land Settlement expenditure from revenue or loan funds	18,138	29,854	1,282	73,046	100,750	51,334	274,404	(a) 86,142	188,262
Agricultural loans (b)	8,568	3,594	1,748	1,654	3,946	810	(c) 20,355	(d) 19,030	1,324
Agricultural allowances	1,160	592	956	650	962	232	(e) 4,553	..	4,553
Administration expenses	1,582	340	142	192	794	96	3,146	..	3,146
Rural training	660	1,008	212	380	454	216	2,930	298	2,632
Total	30,108	35,388	4,340	75,922	106,906	52,688	305,388	105,470	199,918

(a) Excludes interest, rent, and rates, \$21,312,000.

(b) Includes expenditure on new loans of moneys repaid by borrowers.

(c) Includes Northern Territory, \$20,000, and New Guinea, \$14,000.

(d) Excludes interest, \$2,984,000.

(e) Includes New Guinea, \$2,000.

(f) Includes Northern Territory, \$20,000, and New Guinea, \$16,000.

(g) Excludes interest, rent, and rates, \$24,296,000.

Alienation and occupation of Crown lands

The figures in the previous parts of this chapter show separate particulars of various forms of land settlement. The following tables set out the position with regard to the tenure of land in each State, in the Northern Territory, and in the Australian Capital Territory, during 1964. A summary for each State and Territory and for Australia as a whole is also included. Particulars for each year from 1954 to 1964 appear in the bulletin *Rural Industries* No. 2, 1963-64, page 1. The area occupied includes roads, permanent reserves, forests, etc. In some cases lands which are permanently reserved from alienation are occupied under leases or licences, and have been included therein. Lands occupied under leases or licences for pastoral purposes are frequently held on short tenures only, and could thus be made available for settlement practically whenever required.

New South Wales

The total area of New South Wales is 198,037,120 acres, of which 29.7 per cent had been alienated at 30 June 1964; 3.6 per cent was in process of alienation; 57.2 per cent was held under leases and licences; and the remaining 9.5 per cent was unoccupied or held by the Crown.

ALIENATION AND OCCUPATION OF CROWN LAND: NEW SOUTH WALES

30 JUNE 1964

(Acres)

Tenure	Area	Tenure	Area
Alienated	58,850,268	Held under leases and licences—	
		Homestead selections and grants	1,711,243
		Alienable leases, long-term and perpetual	24,313,105
		Long-term leases with limited right of alienation	1,230,568
		Other long-term leases	81,419,540
		Short-term leases and temporary tenures	2,711,078
		Forest leases	1,662,825
		Mining and auriferous leases	213,665
		<i>Total leased or licensed</i>	<i>113,262,024</i>
In process of alienation—		Unoccupied—	
Conditional purchases	5,701,323	Particulars of Lord Howe Island not being available, the area, 3,220 acres, is included under unoccupied (approximate)	18,794,190
Closer settlement purchases	925,652		
Soldiers' group purchases	125,168		
Other forms of sale	378,495		
<i>Total in process of alienation</i>	<i>7,130,638</i>	<i>Total area of State</i>	<i>198,037,120</i>

Victoria

The total area of Victoria is 56,245,760 acres, of which 56.5 per cent had been alienated up to the end of 1964; 4.2 per cent was in process of alienation under deferred payments and closer settlement schemes; 10.9 per cent was occupied under leases and licences; and 28.4 per cent was unoccupied or held by the Crown.

ALIENATION AND OCCUPATION OF CROWN LANDS: VICTORIA
31 DECEMBER 1964
 (Acres)

Tenure	Area	Tenure	Area
Alienated	31,789,514	Leases and licences held— Under Lands Department— Perpetual leases	165,576
		Agricultural college leases	28,235
		Other leases and licences	1,645
		Temporary (yearly) grazing licences(a)	5,951,056
In process of alienation— Exclusive of mallee and closer settlement lands	159,760	<i>Total leased or licensed</i>	<i>6,146,512</i>
Mallee lands (exclusive of closer settlement lands)	942,616		
Closer settlement lands	1,256,989	Occupied by the Crown or un- occupied	15,950,369
<i>Total in process of alienation</i>	<i>2,359,365</i>	<i>Total area of State</i>	<i>56,245,760</i>

(a) Includes 77,730 acres of reserved Crown lands.

Queensland

The total area of this State is 426,880,000 acres, of which, on 31 December 1964, 6.2 per cent was alienated; 0.9 per cent was in process of alienation; and 86.5 per cent was occupied under leases and licences. The remainder, 6.4 per cent, was either unoccupied or held as reserves or for roads.

ALIENATION AND OCCUPATION OF CROWN LANDS: QUEENSLAND
31 DECEMBER 1964
 (Acres)

Tenure	Area	Tenure	Area
Alienated	26,367,845	Occupied under leases and licences— Pastoral leases	246,929,920
		Occupation licences	13,939,581
		Grazing selection and settle- ment farm leases	95,459,925
		Leases—special purposes(a)	4,169,911
		Mining leases	2,195,216
		Perpetual lease selections	6,397,168
		Auction perpetual leases, etc.	46,399
		Forest grazing leases (of reserves)	258,560
		Development leases	7,231
		<i>Total leased or licensed</i>	<i>369,403,911</i>
		Reserves (net, not leased)	17,539,020
		Surveyed roads and surveyed stock routes	3,958,202
		Unoccupied	5,794,052
In process of alienation	3,816,970	<i>Total area of State</i>	<i>426,880,000</i>

(a) Special leases of Crown land, 691,931 acres, special leases of reserves, 3,477,980 acres.

South Australia

The area of South Australia is 243,244,800 acres and at 30 June 1964, 6.5 per cent was alienated; 0.2 per cent in process of alienation; 60.2 per cent occupied under leases and licences; and 33.1 per cent occupied by the Crown or unoccupied.

**ALIENATION AND OCCUPATION OF CROWN LANDS: SOUTH AUSTRALIA
30 JUNE 1964**

(Acres)

Tenure	Area	Tenure	Area
Alienated	15,960,762	Held under lease and licence(a)—	
		Perpetual leases, including	
		irrigation leases	20,652,053
		Pastoral leases	122,718,007
		Other leases and licences	3,011,525
		<i>Total leased or licensed</i>	<i>146,381,585</i>
		Area unoccupied(b)	80,468,063
In process of alienation	434,390	Total area of State	243,244,800

(a) Mining leases and licences have also been issued over an area comprising 236,128,335 acres.
(b) Includes surveyed roads, railways and other reserves, salt water lakes, lagoons, and fresh water lakes.

Western Australia

The total area of Western Australia is 624,588,800 acres, of which, at 30 June 1964, 4.7 per cent was alienated; 2.3 per cent was in process of alienation; and 39.5 per cent was occupied under leases and licences issued by the Lands, Mines or Forests Departments. The balance of 53.5 per cent was unoccupied.

**ALIENATION AND OCCUPATION OF CROWN LANDS: WESTERN AUSTRALIA
30 JUNE 1964**

(Acres)

Tenure	Area	Tenure	Area
Alienated	29,101,406	Leases and licences in force—	
		(i) Issued by Lands Department—	
		Pastoral leases	235,062,418
		Special leases	4,247,500
		Leases of reserves	1,138,810
		Residential lots	4,522
		Perpetual leases	1,855,858
In process of alienation—		(ii) Issued by Mines Department—	
Free homestead farms	309,589	Gold-mining leases	17,357
Conditional purchase	13,912,107	Mineral leases	29,693
Selections under Part VIII. of the Land Act	244,409	Miners' homestead leases	33,525
Town and suburban lots	2,962	(iii) Issued by Forests Department—	
Crown grants of reserves	72,996	Timber permits	4,077,057
		<i>Total leased or licensed</i>	<i>246,466,740</i>
		Area unoccupied	334,478,591
<i>Total in process of alienation</i>	<i>14,542,063</i>	Total area of State	624,588,800

Tasmania

The total area of Tasmania is 16,885,000 acres, of which, at 30 June 1964, 39.1 per cent had been alienated; 1.3 per cent was in process of alienation; 8.6 per cent was occupied under leases and licences for either pastoral, agricultural, timber or mining purposes, or for closer settlement; while the remainder (51.0 per cent) was unoccupied or reserved by the Crown.

ALIENATION AND OCCUPATION OF CROWN LANDS: TASMANIA

30 JUNE 1964

(Acres)

Tenure	Area	Tenure	Area
Alienated	6,597,878	Leases and licences— <i>continued</i>	
		(i) Issued by Lands Department for— <i>continued</i>	
In process of alienation	219,934	Soldier settlement	40,882
		Short-term leases	1,128
Leases and licences—		(ii) Issued by Mines Department	42,000
(i) Issued by Lands Department for—			
Pastoral purposes	1,004,147	<i>Total leased or licensed</i>	<i>1,451,563</i>
Timber getting	347,659	Area occupied by the Crown or	
Closer settlement	15,747	unoccupied	8,615,625
		<i>Total area of State</i>	<i>16,885,000</i>

Northern Territory

The area of the Northern Territory is 332,979,200 acres, of which, at 30 June 1964 only 0.1 per cent was alienated; 57.5 per cent was held under leases and licences; 18.3 per cent was reserved for Aboriginal, defence and public requirements; and the remaining 24.1 per cent was unoccupied and unreserved.

The following shows the mode of occupancy of areas at 30 June 1964: alienated, 323,804 acres; leased—pastoral leases, 177,716,044 acres; other leases, licences and mission stations, 13,720,282 acres; total leased, 191,436,326 acres; reserved for Aboriginal, defence and public requirements, 60,902,400 acres; unoccupied and unreserved, 80,316,670 acres; total 332,979,200 acres.

Australian Capital Territory

Alienated land of the Territory at the end of 1964 comprised 10.6 per cent of the total area; land in process of alienation 6.9 per cent; land held under lease and licence 47.5 per cent; land otherwise occupied, including city tenures, 9.4 per cent; and unoccupied 25.6 per cent.

The following are the particulars of land areas in the Australian Capital Territory at the end of 1964: alienated 63,754 acres; in process of alienation 41,224 acres; leased—grazing, agricultural, etc., leases, 266,654 acres; grazing licences, 12,482 acres; total leased, 279,136 acres; otherwise occupied, including city area leases, 56,629 acres; unoccupied, 142,186 acres; total, 582,929 acres. Including the Jervis Bay area of 18,000 acres—6,266 acres leased and 11,734 acres otherwise occupied—the grand total for the whole Territory is 600,929 acres.

Summary

The following table provides a summary for each State and Territory, and for Australia as a whole, of the alienation and occupation of Crown lands in 1964.

ALIENATION AND OCCUPATION OF CROWN LANDS: STATES AND TERRITORIES 1964

State or Territory	Private lands				Crown lands				Total area
	Alienated		In process of alienation		Leased or licensed		Other (a)		
	'000 acres	Per cent	'000 acres	Per cent	'000 acres	Per cent	'000 acres	Per cent	'000 acres
N.S.W.(b)	58,850	29.7	7,131	3.6	113,262	57.2	18,794	9.5	198,037
Vic.(c)	31,790	56.5	2,359	4.2	6,147	10.9	15,950	28.4	56,246
Qld(c)	26,368	6.2	3,817	0.9	369,404	86.5	27,291	6.4	426,880
S.A.(b)	15,961	6.5	434	0.2	146,382	60.2	80,468	33.1	243,245
W.A.(b)	29,101	4.7	14,542	2.3	246,467	39.5	334,479	53.5	624,589
Tas.(b)	6,598	39.1	220	1.3	1,452	8.6	8,616	51.0	16,885
N.T.(b)	324	0.1	..	..	191,436	57.5	141,219	42.4	332,979
A.C.T.(c)(d)	64	10.6	41	6.9	285	47.5	211	35.0	601
Australia	169,056	8.9	28,544	1.5	1,074,835	56.6	627,027	33.0	1,899,462

(a) Occupied by Crown; reserved; unoccupied; unreserved. (b) At 30 June. (c) At 31 December.
(d) Includes Jervis Bay area.

Advances to settlers

A detailed statement regarding the terms and conditions governing advances to settlers in the several States and the Northern Territory may be found in earlier issues of the Year Book (see List of Special Articles, etc., preceding General Index to this issue). The summaries of loans and advances under State authorities in the following paragraphs are compiled from returns supplied by the State Government lending agencies concerned. A summary for Western Australia is not included, as practically the only governmental funds being made available are Commonwealth (see pages 80-1). The figures include transactions in lands acquired under closer and soldier settlement schemes, but exclude balances owing on former Crown lands sold on the conditional purchase, etc., system. Advances made by general banking institutions in the course of their ordinary business are not included. For information on such advances see the chapter Private Finance.

The amounts outstanding do not represent the actual differences between the total advances and settlers' repayments, for considerable remissions of indebtedness have been made in all States as a result of re-appraisements of land values and the writing down of debts. In general they include both principal and interest outstanding.

In New South Wales and Victoria expenditure on the acquisition, development and improvement of land for war service land settlement is provided for by the States, and particulars thereof are included in the respective summaries. In Queensland no money is paid for the value of the land acquired, most land being occupied on lease from the Government, but advance in respect of improvements are included. In the other States this expenditure is provided for by the Commonwealth, and particulars are included on page 81.

Loans (Agricultural Occupations) under the *Commonwealth Re-establishment and Employment Act* 1945 and certain advances for the purchase of wire-netting and for other purposes made from finance provided by the Commonwealth are included in the summaries following.

ADVANCES TO SETTLERS, ETC.: NEW SOUTH WALES, TO 30 JUNE 1964

Advances, etc.	Advances, etc., made during 1963-64	Total advances, etc. to 30 June 1964	Balances outstanding at 30 June 1964	
			Number	Amount
Department of Lands—	\$'000	\$'000		\$'000
Closer land settlement	1,384	(a) 36,291	6,106	(b) 3,092
Soldier settlers 1914-18 War . . . . .	..	6,392	17	11
1939-45 War	33	29,455	2,552	5,035
Soldier land settlement—acquisition, devel- opment and improvement of land, War Service Land Settlement Agreement Act .	6	57,683	2,106	(c) 51,502
Wire netting . . . . .	..	2,989	1	..
Prickly pear	78	1,112	318	59
Rural Bank—				
General Bank Department (including Com- monwealth Re-establishment Scheme Advances)	18,186	247,629	8,019	47,405
Government Agency Department—				
Rural Industries Agency	613	19,799	866	1,067
Advances to Settlers Agency (including unemployment relief and dairy pro- motion advances)	704	10,856	1,957	2,511
Rural Reconstruction Agency	790	32,634	729	5,323
Irrigation Agency—				
Shallow bores	275	4,956	564	1,216
Farm water supplies	357	3,267	1,089	1,970
Soil conservation	77	441	261	303
Murrumbidgee Irrigation Area—tree mortality advances	9	800	112	661
Rivers and foreshores improvement . .	..	10	21	1
Irrigation areas	213	n.a.	11,840	8,215
Government Guarantee Agency . . . .	..	451	..	..
Closer Settlement Agency . . . . .	..	336	30	60
Total	22,725	(d) 455,101	36,588	128,431

(a) In addition, the sum of \$3,858,000 had been expended to 30 June 1964 on subdivision, maintenance, improvement and disposal of land acquired for closer settlement. (b) Excludes an amount of \$9,380,000 capitalized to 30 June 1964 on conversion into leasehold under the Closer Settlement Amendment (Conversion) Act, 1943 and capital values of leasehold tenures, \$5,822,000. (c) Includes capital value of 2,625 Closer Settlement Leases, \$39,504,000, and unpaid balances on 2,106 Structural Improvement Accounts, \$11,881,000. (d) Incomplete.

ADVANCES TO SETTLERS, ETC.: VICTORIA, TO 30 JUNE 1964

Advances, etc.	Advances, etc., made during 1963-64	Total advances, etc., to 30 June 1964	Balances outstanding at 30 June 1964	
			Number	Amount
State Savings Bank, Crédit Foncier—	\$'000	\$'000		\$'000
Civilians	466	25,058	448	1,443
Discharged soldiers	1	1,698	3	1
Treasurer—				
Cool stores, canneries, etc. . . . .	..	3,686	(a) 2	1,588
Department of Lands and Survey—				
Closer settlement settlers and soldier settlers	..	(b) 93,810	1,551	3,333
Cultivators of land . . . . .	..	4,927	18	16
Wire netting	1	1,477	39	13

For footnotes see next page.

ADVANCES TO SETTLERS, ETC.: VICTORIA, TO 30 JUNE 1964—*continued*

Advances, etc.	Advances, etc., made during 1963-64	Total advances, etc., to 30 June 1964	Balances outstanding at 30 June 1964	
			Number	Amount
Rural Finance and Settlement Commission—	\$'000	\$'000		\$'000
For soldier settlement—				
Purchase of land, and development and improvement of holdings	105	(c) 93,239	n.a.	(d) 47,635
Advances for—				
Development of single unit farms . .	2	23,917	1,492	11,075
Improvements, stock, etc.	78	12,245	431	543
Other advances . . . . .	..	3,594	288	118
For general land settlement—				
Purchase of land	4	1,275	n.a.	} e15,379
Development and improvement of hold- ings	2,200	14,332	n.a.	
Improvements, stock, etc.	184	373	243	275
Total	3,042	279,629	(f) 4,515	81,420

(a) Number of companies. (b) Represents consolidated debts of settlers (Section 30, Act 4091).
(c) Includes advances for settlers' lease liability, \$55,824,000. (d) After allowing an amount of \$30,062,000,
representing excess acquisition, development and improvement costs, which has been written off. Includes
\$44,512,000 outstanding for settlers' lease liability. (e) Includes amounts owing on contracts for sale of
unsuitable land, \$22,000. (f) Incomplete.

ADVANCES TO SETTLERS, ETC.: QUEENSLAND, TO 30 JUNE 1964

Advances, etc.	Advances, etc., made during 1963-64	Total advances, etc., to 30 June 1964	Balances outstanding at 30 June 1964	
			Number	Amount
Co-ordination of Rural Advances and Agricul- tural Bank Acts	\$'000 9,771	\$'000 99,956		\$'000
Discharged soldiers' settlement(a) . . . .	..	(a) 4,936	6,001	42,143
Water facilities . . . . .	..	116	154	60
Wire netting, etc. . . . .	..	2,039	..	..
Seed wheat and barley	5	(b) 361	3	..
Drought relief	7	2,834	n.a.	26
War Service Land Settlement	196	9,928	50	125
Income (Unemployment Relief and State Development) Tax Acts(c) . . . . .	..	2,368	194	1,953
Irrigation . . . . .	..	110	(d) 14	3
Farmers' Assistance (Debt Adjustment) Acts .	..	2,111	..	..
Commonwealth Re-establishment and Em- ployment Act . . . . .	..	1,748	13	37
Water Supplies Assistance Act	623	2,007	23	17
Brigalow and Other Lands Development Act .	1,153	1,153	513	1,780
			45	1,135
Total	11,755	129,667	(d) 7,010	47,280

(a) Includes advances to group settlers through the Lands Department, as well as advances through the
Agricultural Bank. (b) Includes accrued interest. (c) Largely for relief to cotton and tobacco growers
and for rural development (ringbarking, clearing, fencing, etc.). (d) Incomplete.

ADVANCES TO SETTLERS, ETC.: SOUTH AUSTRALIA, TO 30 JUNE 1964

Advances, etc.	Advances, etc., made during 1963-64	Total advances, etc., to 30 June 1964	Balances outstanding at 30 June 1964	
			Number	Amount
	\$'000	\$'000		\$'000
Department of Lands—				
Advances to soldier settlers . . . .	..	10,144	21	389
Advances to blockholders . . . .	..	83	..	..
Advances under Closer Settlement Acts .	..	5,461	437	967
Advances under Agricultural Graduates Settlement Act . . . . .	..	125	..	..
Settlement of Returned Service Personnel, 1939-45 War	2,567	24,079	1,073	12,153
Advances under Crown Lands Development Act	131	952	70	709
Primary Producers Assistance Department—				
Advances in drought-affected areas . .	..	4,294	3	2
Advances under Farmers Relief Acts .	..	8,871	2	1
Irrigation Branch—				
Advances to civilians . . . . .	..	583	..	..
Advances to soldier settlers . . . .	..	2,096	132	319
State Bank of South Australia—				
Advances to settlers for improvements .	111	3,105	339	1,000
Advances under Vermin and Fencing Acts .	1	2,875	90	84
Advances under Loans to Producers Act .	1,712	8,428	156	6,004
Commonwealth Re-establishment and Em- ployment Act . . . . .	..	1,655	210	185
Total	4,522	72,749	2,533	21,812

Western Australia

The operations prior to 1945 covered in this section related to moneys made available through, or by, the old Agricultural Bank and other Government Departments for the purpose of agricultural development. On 1 October 1945, however, the Agricultural Bank was reconstituted as the Rural and Industries Bank of Western Australia, and was given authority to operate in similar manner to the associated banks. Certain securities in the books of the old bank were taken over by the general banking division of the new bank, and the clients concerned then operated with privileges and obligations similar to those provided by other banking institutions. The majority of the remaining securities, also, were eventually transferred.

At present, very limited funds are being made available by the State Government for advances for agricultural development, the bulk of the moneys for this purpose being provided by the Commonwealth Government under the War Service Land Settlement and Commonwealth Re-establishment and Employment Acts. Particulars of this expenditure are shown on page 81.

Tasmania

Particulars of advances made for the purchase of land for closer and soldier land settlement included in this table for earlier years are now omitted, as they are not regarded as outstanding advances by the Department of Agriculture; the areas so purchased have been leased on 99-year terms with an option of purchase which the leaseholder may exercise at any time.

ADVANCES TO SETTLERS, ETC.: TASMANIA, TO 30 JUNE 1964

Advances, etc.	Advances, etc., made during 1963-64	Total advances, etc., to 30 June 1964	Balances outstanding at 30 June 1964	
			Number	Amount
	\$'000	\$'000		\$'000
Agricultural Bank—				
State Advances Act and Rural Credits .	689	10,015	820	2,915
Commonwealth Re-establishment and Em- ployment Act . . . . .	..	815	111	111
Primary Producers' Relief Act 1947 . .	..	596	32	12
Minister for Agriculture—				
Soldier settlers—				
Advances	20	2,080	204	98
Closer settlers—				
Advances	28	336	53	314
Total	737	13,842	1,220	3,451

Northern Territory

During the year 1963-64 forty advances totalling \$117,470 were approved and advances made totalled \$92,767. At 30 June 1964 the balance outstanding from ninety-six settlers, including interest, was \$386,950.

CHAPTER 5

MANUFACTURING INDUSTRY

Further detail on the subjects dealt with in this chapter is contained in the annual printed bulletins *Manufacturing Industry* and *Manufacturing Commodities*, formerly *Secondary Industries*, Parts I and II. Information is also published, as soon as the data can be prepared, in a series of thirty-five annual mimeographed bulletins, *Manufacturing Industries*, each relating to a particular industry or group of industries. Details of the industries covered are contained in Statistical Publications of Australia of the Miscellaneous chapter. Advance annual information is published in mimeographed form in *A Summary of Principal Statistics of Factories* and in *Principal Factory Products*. Current information on factory products is available in the *Quarterly Summary of Australian Statistics*, the *Monthly Review of Business Statistics*, the *Digest of Current Economic Statistics*, and the *Monthly Bulletin of Production Statistics*. Preliminary annual statements (*Factory Statistics*) and *Principal Statistics of Factories, by Class of Industry* and a monthly statement (*Production Statistics*) are also issued.

In addition to the above-mentioned publications, there is also a series of forty-eight *Monthly Production Summaries*, each relating to the production of a particular commodity or group of commodities (see reference above to Statistical Publications).

Introduction

A complete statistical account of the growth of the manufacturing industry in Australia cannot be given, as the necessary statistics were not collected by the several States on a definite and uniform basis prior to 1906. A standard classification of manufacturing industries was formulated at a conference of Australian statisticians in 1902 and adopted by all States in 1906, and figures on this basis were prepared for 1907 and subsequent years.

An historical summary of the development of the manufacturing industry in Australia since 1901 is contained in earlier issues of the Year Book (see No. 51, pages 143-4).

The decentralization of secondary industries, and the steps taken by Commonwealth and State Governments towards its development, are referred to in previous issues of the Year Book (see No. 51, page 144).

The Commonwealth Scientific and Industrial Research Organization, the Standards Association of Australia and the National Association of Testing Authorities are organizations which have functions concerned with the improvement of efficiency in industrial operations. For further particulars see the chapter Education, Cultural Activities and Research of this Year Book.

The Industrial Design Council of Australia was established in June 1958 for the purpose of encouraging better design in Australian-made goods and fostering an appreciation of good design throughout the community. It has a membership fully representative of industry, commerce and government, together with designers and educationists and is financed by donations from industry and by Commonwealth grants. The Council is responsible for the Australian Design Index which provides a detailed, illustrated record of well-designed Australian products. A Record of Designers has been set up to register information about industrial designers and their work. The Council is also concerned, in co-operation with education authorities, with raising the standard of training in industrial design. For further particulars see Year Book No. 51, page 145.

Bounties are paid by the Commonwealth Government to encourage local manufacture of certain products. The statutory provisions usually fix a term of operation of the bounty, provide for payment at a rate varying according to changes in the corresponding customs duty, specify the annual maximum amount of bounty payable and require the bounty to be withheld or reduced if a manufacturer's net profit in production of the commodity exceeds a certain rate, or if rates of wages and conditions of employment in production of the commodity do not conform to prescribed standards. (See the chapter Public Finance for products on which bounties are paid.)

Definitions in factory statistics

The statistics relating to factories have been compiled from tabulations made by the Deputy Commonwealth Statisticians in the several States from returns supplied to them annually by manufacturers in accordance with the statistical Acts of the States and the Commonwealth. A return must be supplied in respect of every *factory*, which is defined for this purpose as an establishment where four or more persons are employed or where power (other than manual) is used in any manufacturing process. This definition includes factories in educational and charitable institutions, reformatories, and other public institutions (except penitentiaries), but does not cover smallgoods makers, laundries, photography studios, florists and seedsmen, or most abattoirs. Details relating to small establishments not classified for statistical purposes as factories are not included in the figures contained in this chapter.

If a manufacturing business is conducted in conjunction with any other activity, particulars relating to the manufacturing section only are included in the statistics. Where two or more industries are conducted in the same establishment, a separate return is obtained for each industry if practicable.

Manufacturers are requested to state in their returns particulars as to the number, age etc., of their employees, salaries and wages paid, the value of premises and equipment, the horsepower of machinery, the value of raw materials (including containers), tools replaced, etc., the values and in most cases the quantities of fuel used, and quantities and values of principal materials used and articles produced. The returns obtained from manufacturers are not intended to show a complete record of the income and expenditure of factories nor to show the profits or losses of factories collectively or individually.

All *persons employed* in the manufacturing activities of a factory are counted as factory employees including working proprietors and 'out-workers'.

The *average number of persons employed* is quoted on two different bases, the average during the period of operation and the average over the whole year. Of these, the former is simply the aggregate of the average number of persons employed in each factory during its period of operation (whether the whole or only part of the year). This average is used only in respect of details relating to classification according to the number of persons employed. The latter, which is used in all other instances, is calculated by reducing the average number working in the factories (irrespective of period of operation) to the equivalent number working for a full year.

Working proprietors are included in all employment figures other than those relating to monthly employment and age dissections, but salaries and wages paid in all cases exclude drawings by working proprietors.

Value of materials used includes the value, in the usual sense, of the materials used, stores used, containers, tools replaced, and materials used in repairs to plant.

Value of fuel, etc., used includes also the cost of power and light used, of lubricants and of water.

The *value of factory output* is the value of the goods manufactured or their value after passing through the particular process of manufacture concerned, and includes the amount received for repair work, work done on commission and receipts for other factory work. The basis of valuation of the output is the selling value of the goods at the factory, exclusive of all delivery costs and charges and excise duties, but inclusive of bounty and subsidy payments to the manufacturer of the finished article. In the special case of government factories and workshops, the value of output is, in most cases, estimated by adding ten per cent to the value of materials and fuel used and other factory costs, including salaries and wages paid.

The *value of production* is the value added to raw materials by the process of manufacture. It is calculated by deducting from the value of factory output the value (at the factory) of the materials used, containers and packing, power, fuel and light used, tools replaced, and materials used in repairs to plant (but not depreciation charges). In the process of manufacture, many goods are treated in several industries, the output of one becoming the raw material of another, so that such commodities are counted more than once in the aggregate value of output and of raw materials. Examples are raw sugar passing from the mills to the refinery, metals from the smelters which become raw materials in establishments concerned in the production of metal goods, timber from the sawmills used in furniture factories and in joinery, and synthetic resins from chemical works used to make plastic products. On the other hand, the aggregate value of production is assessed without duplication, the value added by each industry being taken into account once only. For this reason, the value of production, and not the value of the output, is used as a measure of activity in the manufacturing industries as a whole.

The *rated horse-power of engines used* for factories other than central electric stations relates to the rated horse-power of engines ordinarily in use.

Statistics relating to factory activity in the Australian Capital Territory and Northern Territory are not included in the figures contained in this chapter.

A standard classification of manufacturing industries is used in compiling statistical data relating to factories in Australia. It is designed in accordance with decisions of the 1945 Conference of Statisticians, and represents a revision and extension of a new classification which was introduced in 1930-31, replacing the revised versions of the original classification formulated in 1902.

Owing to limitations of space, details published in general tables in this chapter are confined either to the sixteen classes of industry or to total factory activity. Some particulars of certain of the sub-classes shown below are published in the latter portion of this chapter, and full details for all sub-classes may be found in the bulletin *Manufacturing Industry* (previously entitled *Secondary Industries, Part I—Factory and Building Operations*).

The classes and sub-classes in the current classification of factories are as follows.

CLASSIFICATION OF FACTORIES

CLASS 1. TREATMENT OF NON-METALLIFEROUS MINE AND QUARRY PRODUCTS

1. Coke works
2. Briquetting and pulverized coal
3. Carbide
4. Lime, plaster of paris, asphalt
5. Fibrous plaster and products
6. Marble, slate, etc.
7. Cement, portland
8. Asbestos cement sheets and mouldings
9. Other cement goods
10. Other

CLASS 2. BRICKS, POTTERY, GLASS, ETC.

1. Bricks and tiles
2. Earthenware, china, porcelain and terracotta
3. Glass (other than bottles)
4. Glass bottles
5. Other

CLASS 3. CHEMICALS, DYES, EXPLOSIVES, PAINTS, OILS, GREASE

1. Industrial and heavy chemicals and acids
2. Pharmaceutical and toilet preparations
3. Explosives (including fireworks)
4. White lead, paints and varnish
5. Oils, vegetable
6. Oils, mineral
7. Oils, animal
8. Boiling-down, tallow-refining
9. Soap and candles
10. Chemical fertilizers
11. Inks, polishes, etc.
12. Matches
13. Other

CLASS 4. INDUSTRIAL METALS, MACHINES, CONVEYANCES

1. Smelting, converting, refining, rolling of iron and steel
2. Foundries (ferrous)
3. Plant, equipment and machinery, including machine tools
4. Other engineering
5. Extracting and refining of other metals; alloys
6. Electrical machinery, cables and apparatus
- 7-16. Construction and repair of vehicles (10 groups)
- 17, 18. Ship and boat building and repairing, marine engineering (government and other)
19. Cutlery and small hand tools
20. Agricultural machines and implements
- Non-ferrous metals—
21. Rolling and extrusion
22. Founding, casting, etc.
24. Sheet metal working, pressing, and stamping
25. Pipes, tubes and fittings—ferrous
26. Wire and wire working (including nails)
27. Stoves, ovens and ranges
28. Gas fittings and meters
29. Lead mills
30. Sewing machines
31. Arms, ammunition (excluding explosives)
32. Wireless and amplifying apparatus
33. Other metal works

CLASS 5. PRECIOUS METALS, JEWELLERY, PLATE

1. Jewellery
2. Watches and clocks (including repairs)
3. Electroplating (gold, silver, chromium, etc.)

CLASS 6. TEXTILES AND TEXTILE GOODS (NOT DRESS)

1. Cotton ginning
2. Cotton spinning and weaving
3. Wool—carding, spinning, weaving
4. Hosiery and other knitted goods
5. Silk, natural
6. Rayon, nylon and other synthetic fibres
7. Flax mills
8. Rope and cordage
9. Canvas goods, tents, tarpaulins, etc.
10. Bags and sacks
11. Textile dyeing, printing and finishing
12. Other

CLASS 7. SKINS AND LEATHER (NOT CLOTHING OR FOOTWEAR)

1. Furriers and fur-dressing
2. Woollscouring and fellmongery
3. Tanning, currying and leather-dressing
4. Saddlery, harness and whips
5. Machine belting (leather or other)
6. Bags, trunks and other goods of leather and leather substitutes

CLASS 8. CLOTHING (EXCEPT KNITTED)

1. Tailoring and ready-made clothing
2. Waterproof and oilskin clothing
3. Dressmaking, hemstitching
4. Millinery
5. Shirts, collars, underclothing
6. Foundation garments
7. Handkerchiefs, ties and scarves
8. Hats and caps
9. Gloves
10. Boots and shoes (not rubber)
11. Boot and shoe repairing
12. Boot and shoe accessories
13. Umbrellas and walking sticks
14. Dyeworks and cleaning, etc.
15. Other

CLASS 9. FOOD, DRINK AND TOBACCO

1. Flour-milling
2. Cereal foods and starch
3. Animal and bird foods
4. Chaffcutting and cornercrushing
5. Bakeries (including cakes and pastry)
6. Biscuits
7. Sugar-mills
8. Sugar-refining
9. Confectionery (including chocolate and icing sugar)
10. Jam, fruit and vegetable canning
11. Pickles, sauces, vinegar
12. Bacon curing
13. Butter factories
14. Cheese factories

CLASS 9. FOOD, DRINK AND TOBACCO—continued

15. Condensed and dried milk factories
16. Margarine
17. Meat and fish preserving
18. Condiments, coffee, spices
19. Ice and refrigerating
20. Salt
21. Aerated waters, cordials, etc.
22. Breweries
23. Distilleries
24. Wine-making
25. Cider and perry
26. Malting
27. Bottling
28. Tobacco, cigars, cigarettes, snuff
29. Dehydrated fruit and vegetables
30. Ice cream
31. Sausage casings
32. Arrowroot
33. Other

CLASS 10. SAWMILLS, JOINERY, BOXES, ETC., WOOD TURNING AND CARVING

1. Sawmills
2. Plywood mills (including veneers)
3. Bark mills
4. Joinery
5. Cooperage
6. Boxes and cases
7. Woodturning, woodcarving, etc.
8. Basketware and wickerware (including sea-grass and bamboo furniture)
9. Perambulators (including pushers and strollers)
10. Wall and ceiling boards (not plaster or cement)
11. Other

CLASS 11. FURNITURE OF WOOD, BEDDING, ETC.

1. Cabinet and furniture making (including billiard tables and upholstery)
2. Bedding and mattresses (not wire)
3. Furnishing drapery
4. Picture frames
5. Blinds

CLASS 12. PAPER, STATIONERY, PRINTING, BOOKBINDING, ETC.

1. Newspapers and periodicals
- Printing—
2. Government
3. General, including bookbinding
4. Manufactured stationery
5. Stereotyping, electrotyping
6. Process and photo engraving
7. Cardboard boxes, cartons and containers
8. Paper bags
9. Paper-making
10. Pencils, penholders, chalks, crayons
11. Other

CLASS 13. RUBBER

1. Rubber goods (including tyres made)
2. Tyre retreading and repairing

CLASS 14. MUSICAL INSTRUMENTS

1. Gramophones and gramophone records
2. Pianos, piano-players, organs
3. Other

CLASS 15. MISCELLANEOUS PRODUCTS

1. Linoleum, leather-cloth, oil-cloth, etc.
2. Bone, horn, ivory and shell
3. Plastic moulding and products
4. Brooms and brushes
5. Optical instruments and appliances
6. Surgical and other scientific instruments and appliances
7. Photographic material (including developing and printing)
8. Toys, games and sports requisites
9. Artificial flowers
10. Other

CLASS 16. HEAT, LIGHT, AND POWER

- 1-3. Electric light and power
- 4-6. Gas works

Factory development since 1901, Australia

The development of the manufacturing industries in Australia at intervals since 1901 is summarized in the following table.

FACTORIES: AUSTRALIA, 1901 TO 1964-65

Year	Fac- tories	Em-ploy- ment(a)	Salaries and wages paid(b)	Value of				
				Materials and fuel used	Output	Pro- duction (c)	Land and build- ings	Plant and ma- chinery
	No.	'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
1901	11,143	198	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1911	14,455	312	55,056	163,526	266,044	102,518	65,402	63,032
1920-21	17,113	367	125,864	427,118	647,986	220,868	121,662	137,310
1930-31	21,751	339	124,910	344,978	581,598	236,620	224,422	248,996
1940-41	27,300	650	275,838	773,762	1,289,590	515,828	288,188	322,712
1950-51	43,147	969	983,436	2,613,926	4,301,670	1,687,744	605,570	673,230
1959-60	56,657	1,132	2,173,390	5,918,432	10,079,530	4,161,098	2,129,156	2,443,208
1960-61	57,782	1,145	2,289,230	6,115,930	10,465,766	4,349,836	2,389,140	2,785,566
1961-62	58,450	1,121	2,286,550	6,113,466	10,508,102	4,394,636	2,809,640	3,052,080
1962-63	59,146	1,168	2,446,632	6,687,886	11,483,076	4,795,190	3,006,492	3,286,462
1963-64	59,375	1,210	2,651,620	7,370,622	12,641,328	5,270,706	3,204,035	3,480,673
1964-65p	60,650	1,264	2,979,976	8,118,147	13,990,211	5,872,063	3,476,759	3,748,510

(a) 1901 and 1911—average employment during period of operation. Later years relate to average employment over whole year. Working proprietors are included in all years. (b) Excludes drawings by working proprietors. (c) Value added in process of manufacture (i.e., value of output less value of materials and fuel, etc., used).

Number of factories

Number in each State

FACTORIES: NUMBER, STATES, 1959-60 TO 1963-64

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1959-60 . . .	23,274	16,979	5,758	4,684	4,279	1,683	56,657
1960-61 . . .	23,585	17,173	5,882	5,042	4,334	1,766	57,782
1961-62 . . .	23,629	17,300	5,824	5,519	4,418	1,760	58,450
1962-63 . . .	23,729	17,500	5,895	5,766	4,492	1,764	59,146
1963-64 . . .	23,642	17,597	5,955	5,826	4,609	1,746	59,375

Number by class of industry

The next table shows the number of factories in Australia classified to the industrial classes agreed upon by the Conference of Statisticians in 1930.

FACTORIES: NUMBER, BY CLASS OF INDUSTRY, AUSTRALIA
1959-60 TO 1963-64

Class of industry	1959-60	1960-61	1961-62	1962-63	1963-64
1. Treatment of non-metalliferous mine and quarry products	1,374	1,434	1,454	1,493	1,517
2. Bricks, pottery, glass, etc.	682	694	694	692	692
3. Chemicals, dyes, explosives, paints, oils, grease	1,248	1,258	1,285	1,288	1,303
4. Industrial metals, machines, conveyances	22,622	23,532	24,193	24,914	25,415
5. Precious metals, jewellery, plate	823	859	911	918	927
6. Textiles and textile goods (not dress)	1,435	1,421	1,386	1,368	1,358
7. Skins and leather (not clothing or footwear)	727	703	671	656	645
8. Clothing (except knitted)	7,267	7,493	7,561	7,614	7,447
9. Food, drink and tobacco	7,449	7,331	7,251	7,161	7,034
10. Sawmills, joinery, boxes, etc., wood turning and carving	5,771	5,732	5,634	5,521	5,422
11. Furniture of wood, bedding, etc.	2,211	2,176	2,157	2,154	2,181
12. Paper, stationery, printing, bookbinding, etc.	2,619	2,688	2,739	2,774	2,828
13. Rubber	620	629	650	659	674
14. Musical instruments	87	88	85	86	82
15. Miscellaneous products	1,330	1,370	1,409	1,486	1,494
<i>Total, classes 1 to 15</i>	<i>56,265</i>	<i>57,408</i>	<i>58,080</i>	<i>58,784</i>	<i>59,019</i>
16. Heat, light and power	392	374	370	362	356
Grand total	56,657	57,782	58,450	59,146	59,375

The following table shows the number of factories in each State classified by nature of industry.

FACTORIES: NUMBER, BY CLASS OF INDUSTRY, STATES, 1963-64

Class of industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1. Treatment of non-metalliferous mine and quarry products . . .	520	480	118	192	149	58	1,517
2. Bricks, pottery, glass, etc. . .	309	189	50	76	49	19	692
3. Chemicals, dyes, explosives, paints, oils, grease . . .	614	395	90	100	76	28	1,303
4. Industrial metals, machines, conveyances . . .	10,255	7,041	2,500	2,841	2,160	618	25,415
5. Precious metals, jewellery, plate . . .	353	251	44	174	86	19	927
6. Textiles and textile goods (not dress)	433	773	33	57	42	20	1,358
7. Skins and leather (not clothing or footwear) . . .	291	246	42	38	23	5	645
8. Clothing (except knitted) . . .	3,356	2,506	557	573	368	87	7,447
9. Food, drink and tobacco . . .	2,467	1,957	967	737	621	285	7,034
10. Sawmills, joinery, boxes, etc., wood turning and carving . . .	2,008	1,323	784	413	454	440	5,422
11. Furniture of wood, bedding, etc. . .	789	644	276	221	181	70	2,181
12. Paper, stationery, printing, book-binding, etc. . .	1,182	1,038	221	193	148	46	2,828
13. Rubber . . .	234	183	120	59	58	20	674
14. Musical instruments . . .	36	21	7	11	7	..	82
15. Miscellaneous products . . .	710	494	78	108	90	14	1,494
<i>Total, classes 1 to 15</i> . . .	<i>23,557</i>	<i>17,541</i>	<i>5,887</i>	<i>5,793</i>	<i>4,512</i>	<i>1,729</i>	<i>59,019</i>
16. Heat, light and power . . .	85	56	68	33	97	17	356
Grand total . . .	23,642	17,597	5,955	5,826	4,609	1,746	59,375

Classification of factories by number of persons employed

The classification of factories in the tables on pages 96-8 is based on the average weekly number of persons employed during the period of operation (including working proprietors).

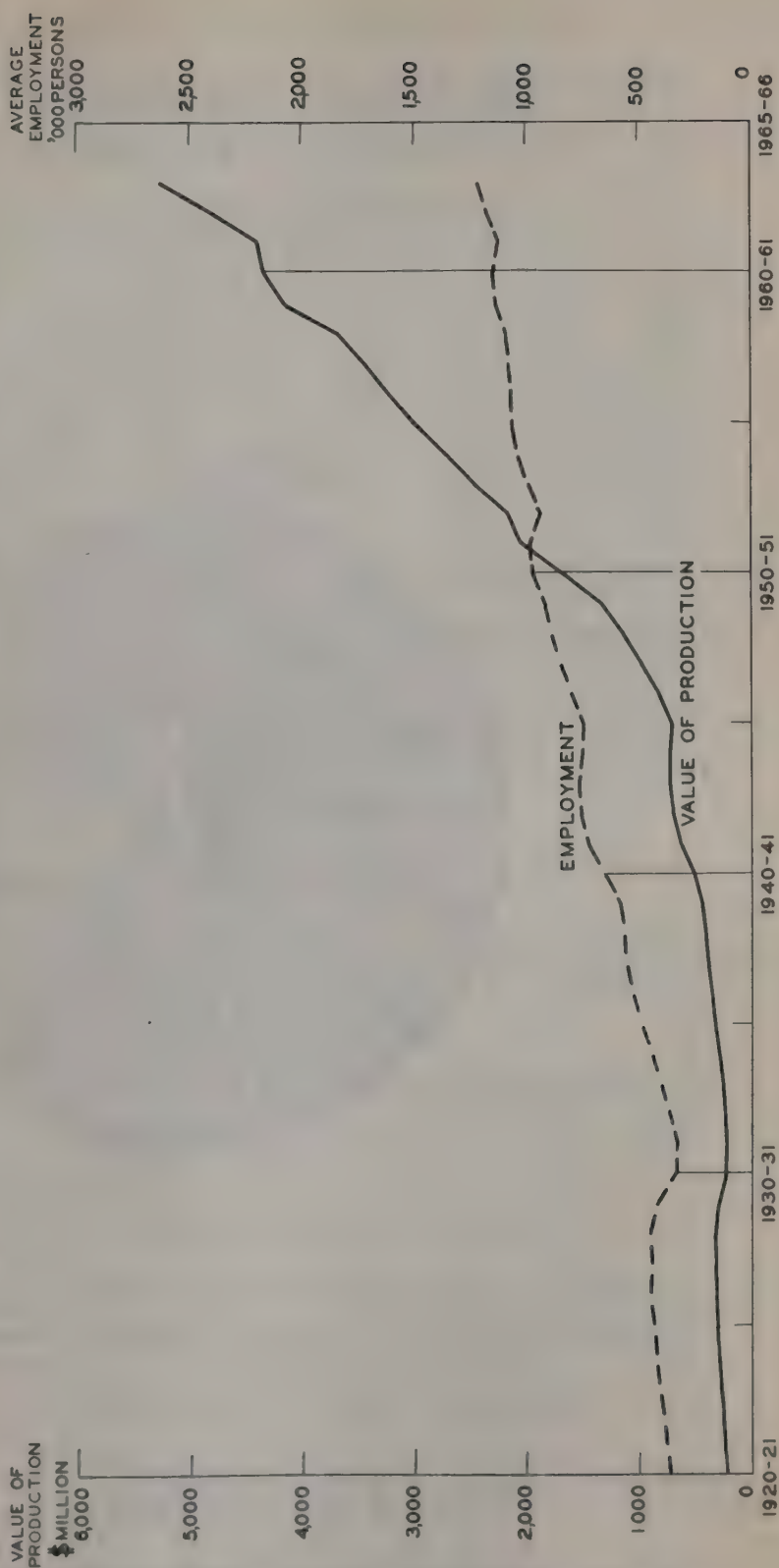
States

The following table shows, for each State, the number of factories and the average number of persons employed therein, classified by the average number of persons employed.

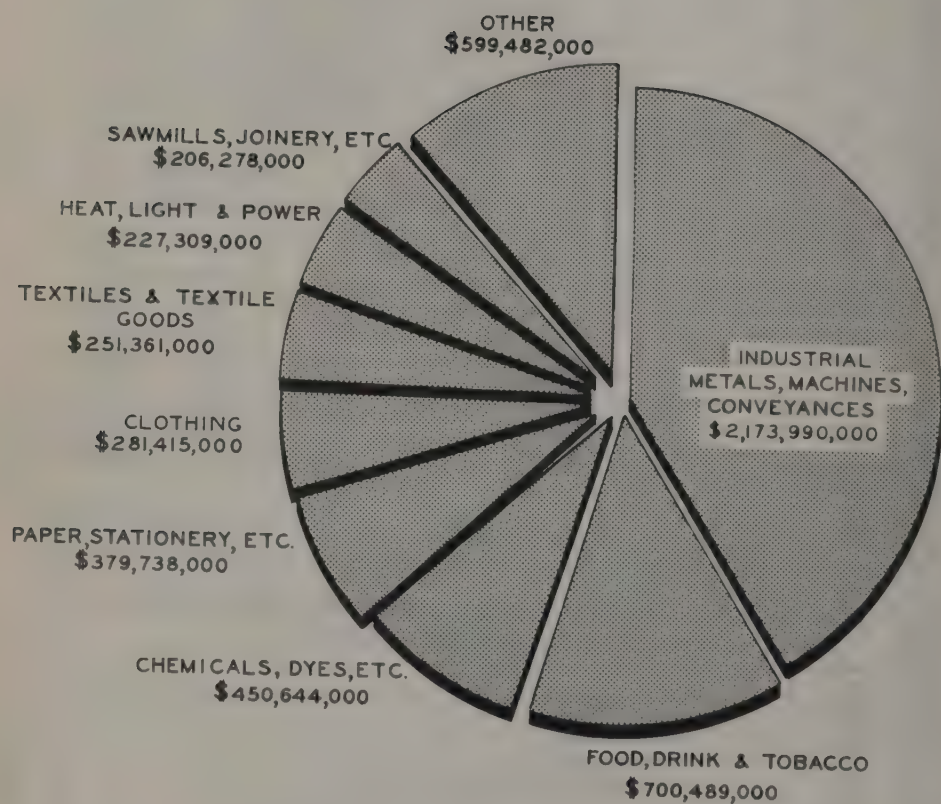
FACTORIES: NUMBER OF FACTORIES AND PERSONS EMPLOYED, BY AVERAGE NUMBER EMPLOYED, STATES, 1963-64

Persons employed	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
NUMBER OF FACTORIES							
Under 4 . . .	10,169	6,256	2,147	2,678	2,298	751	24,299
4 . . .	1,865	1,361	523	465	391	155	4,760
5 to 10 . . .	5,270	4,154	1,593	1,259	934	414	13,624
11 to 20 . . .	2,795	2,437	756	636	447	198	7,269
21 to 50 . . .	2,012	1,919	555	446	342	140	5,414
51 to 100 . . .	802	735	183	184	115	44	2,063
101 to 200 . . .	388	401	106	82	51	26	1,054
201 to 300 . . .	118	147	45	30	21	5	366
301 to 400 . . .	67	55	19	15	4	4	164
401 to 500 . . .	47	33	11	3	3	1	98
501 to 750 . . .	44	62	9	12	..	2	129
751 to 1,000 . . .	29	13	4	6	1	1	54
Over 1,000 . . .	36	24	4	10	2	5	81
Total . . .	23,642	17,597	5,955	5,826	4,609	1,746	59,375

VALUE OF PRODUCTION AND AVERAGE EMPLOYMENT IN AUSTRALIAN FACTORIES, 1920-21 TO 1963-64



VALUE OF PRODUCTION* OF AUSTRALIAN FACTORIES BY INDUSTRY, 1963-64



* "VALUE OF PRODUCTION" IS THE VALUE ADDED IN THE PROCESS OF MANUFACTURE

TOTAL - \$5,270,706,000

FACTORIES: NUMBER OF FACTORIES AND PERSONS EMPLOYED, BY AVERAGE
NUMBER EMPLOYED, STATES, 1963-64—*continued*

Persons employed	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
AVERAGE NUMBER EMPLOYED DURING PERIOD WORKED							
Under 4 . . .	18,593	12,217	4,439	4,912	4,222	1,448	45,831
4 . . .	7,460	5,444	2,092	1,860	1,564	620	19,040
5 to 10 . . .	36,732	29,181	10,955	8,693	6,437	2,922	94,920
11 to 20 . . .	40,823	35,854	11,002	9,338	6,473	2,872	106,362
21 to 50 . . .	63,105	61,022	17,641	14,062	10,737	4,560	171,127
51 to 100 . . .	55,928	51,945	12,863	12,692	7,968	3,132	144,528
101 to 200 . . .	54,113	56,335	15,175	11,642	7,106	3,435	147,806
201 to 300 . . .	28,587	36,104	11,019	7,199	4,915	1,262	89,086
301 to 400 . . .	23,226	19,366	6,411	5,347	1,350	1,388	57,088
401 to 500 . . .	21,250	14,771	4,975	1,324	1,435	482	44,237
501 to 750 . . .	26,563	37,269	5,432	7,191	..	1,260	77,715
751 to 1,000 . . .	24,925	11,240	3,516	5,120	790	800	46,391
Over 1,000 . . .	89,585	44,161	5,952	21,768	3,866	8,057	173,389
Total . . .	490,890	414,909	111,472	111,148	56,863	32,238	1,217,520
Average per factory . . .	20.76	23.58	18.72	19.08	12.34	18.46	20.51

Australia

The following table gives details for Australia according to broad groups.

FACTORIES: NUMBER OF FACTORIES AND PERSONS EMPLOYED, BY AVERAGE
NUMBER EMPLOYED, AUSTRALIA, 1959-60 TO 1963-64

Year	Establishments employing on the average—							
	20 and under		21 to 100		101 and upwards		Total	
	Es- tablish- ments	Persons em- ployed	Es- tablish- ments	Persons em- ployed	Es- tablish- ments	Persons em- ployed	Es- tablish- ments	Persons em- ployed
1959-60—								
Number . . .	47,791	258,162	7,078	293,400	1,788	587,832	56,657	1,139,394
Average per establishment . . .	..	5.40	..	41.45	..	328.77	..	20.11
1960-61—								
Number . . .	48,728	260,276	7,241	301,251	1,813	591,808	57,782	1,153,335
Average per establishment . . .	..	5.34	..	41.60	..	326.42	..	19.96
1961-62—								
Number . . .	49,546	261,679	7,111	296,907	1,793	569,976	58,450	1,128,562
Average per establishment . . .	..	5.28	..	41.75	..	317.89	..	19.31
1962-63—								
Number . . .	50,057	265,802	7,217	304,694	1,872	603,896	59,146	1,174,392
Average per establishment . . .	..	5.31	..	42.22	..	322.59	..	19.86
1963-64—								
Number . . .	49,952	266,153	7,477	315,655	1,946	635,712	59,375	1,217,520
Average per establishment . . .	..	5.33	..	42.22	..	326.68	..	20.51

Classes of industry

In the following table factories are classified by industrial classes in the same broad groups.

**FACTORIES: NUMBER OF FACTORIES AND PERSONS EMPLOYED, BY AVERAGE
NUMBER EMPLOYED AND CLASS OF INDUSTRY, AUSTRALIA, 1963-64**

Class of industry	Establishments employing on the average—							
	20 and under		21 to 100		101 and upwards		Total	
	Es- tablish- ments	Persons em- ployed	Es- tablish- ments	Persons em- ployed	Es- tablish- ments	Persons em- ployed	Es- tablish- ments	Persons em- ployed
1. Treatment of non-metal- liferous mine and quarry products	1,318	7,141	156	6,556	43	11,129	1,517	24,826
2. Bricks, pottery, glass, etc.	431	3,215	214	9,854	47	12,788	692	25,857
3. Chemicals, dyes, explos- ives, paints, oils, grease	916	5,961	278	13,129	109	30,439	1,303	49,529
4. Industrial metals, mach- ines, conveyances	21,991	110,548	2,622	110,080	802	333,791	25,415	554,419
5. Precious metals, jewellery, plate	881	3,799	44	1,522	2	244	927	5,565
6. Textiles and textile goods (not dress)	810	5,894	373	16,699	175	50,892	1,358	73,485
7. Skins and leather (not clothing or footwear)	494	3,107	132	5,391	19	3,774	645	12,272
8. Clothing (except knitted)	6 202	31,056	1,068	44,304	177	34,628	7,447	109,988
9. Food, drink and tobacco	5,922	30,502	864	38,106	248	67,758	7,034	136,366
10. Sawmills, joinery, boxes, etc., wood turning and carving	4,803	28,065	559	21,340	60	9,277	5,422	58,682
11. Furniture of wood, bed- ding, etc.	1,911	9,849	250	9,654	20	3,218	2,181	22,721
12. Paper, stationery, printing, bookbinding, etc.	2,089	14,697	608	25,541	131	39,166	2,828	79,404
13. Rubber	591	2,973	53	2,288	30	15,121	674	20,382
14. Musical instruments	73	334	9	450	..	82	82	784
15. Miscellaneous products	1,252	7,639	195	8,444	47	11,481	1,494	27,564
Total, classes 1 to 15	49,684	264,780	7,425	313,358	1,910	623,706	59,019	1,201,844
16. Heat, light and power	268	1,373	52	2,297	36	12,006	356	15,676
Grand total	49,952	266,153	7,477	315,655	1,946	635,712	59,375	1,217,520

Employment in factories

Number employed

All persons employed in the manufacturing activities of a factory, including proprietors who work in their own business and 'out-workers' (see page 101), are counted as factory employees, while those employed in selling and distributing, such as salesmen, travellers, collectors, carters employed solely on outward delivery of manufactured goods, and retailing storemen, are excluded. From 1960-61 the occupational groupings collected have been—(i) working proprietors; (ii) managerial and clerical staff including salaried managers and working directors; (iii) chemists, craftsmen and other laboratory and research staff; and (iv) foremen and overseers, workers in factory and others, in which were amalgamated the three former groups—(iv) foremen and overseers; (v) skilled and unskilled workers; (vi) carters (excluding delivery only), messengers, and persons working regularly at home.

Statistics of factory employment represent the equivalent average number employed over a full year of fifty-two weeks except for the classification of factories according to the number of persons employed (see page 96), which is based on the average number employed over the period worked.

Particulars of the numbers employed in Australia, the increase in employment, and the rate per cent. of such increase are given in the following table.

FACTORIES: EMPLOYMENT, AUSTRALIA, 1959-60 TO 1963-64

Year	Males			Females			Persons		
	Number employed	Increase on preceding year		Number employed	Increase on preceding year		Number employed	Increase on preceding year	
		Number	Per cent		Number	Per cent		Number	Per cent
1959-60.	862,515	27,575	3.30	269,492	16,176	6.39	1,132,007	43,751	4.02
1960-61.	872,632	10,117	1.17	272,720	3,228	1.20	1,145,352	13,345	1.18
1961-62.	857,971	-14,661	-1.68	263,299	-9,421	-3.45	1,121,270	-24,082	-2.10
1962-63.	888,697	30,726	3.58	278,832	15,533	5.90	1,167,529	46,259	4.13
1963-64.	918,130	29,433	3.31	291,790	12,958	4.65	1,209,920	42,391	3.63

Minus sign (—) indicates decrease.

The following table shows the average number of persons employed in manufacturing industries in each State; the percentage for each State of the total number employed in factories in Australia; and the number so employed per thousand of mean population in each State and Australia.

FACTORIES: EMPLOYMENT, STATES, 1959-60 TO 1963-64

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Average number employed during full year (fifty-two weeks)—							
1959-60.	467,139	381,844	104,693	99,018	49,651	29,662	1,132,007
1960-61.	472,061	388,050	104,462	99,955	50,666	30,158	1,145,352
1961-62.	461,087	378,349	101,637	99,094	51,033	30,070	1,121,270
1962-63.	475,249	397,827	104,998	105,265	53,435	30,755	1,167,529
1963-64.	487,753	413,120	110,696	110,813	55,705	31,833	1,209,920
Percentage of Australian total							
1959-60.	41.27	33.73	9.25	8.75	4.39	2.62	100
1960-61.	41.22	33.88	9.12	8.73	4.42	2.63	100
1961-62.	41.12	33.74	9.07	8.84	4.55	2.68	100
1962-63.	40.71	34.07	8.99	9.02	4.58	2.63	100
1963-64.	40.31	34.14	9.15	9.16	4.60	2.63	100
Per 1,000 of population—							
1959-60.	123	135	71	106	69	86	111
1960-61.	122	134	70	104	69	86	111
1961-62.	117	128	67	101	68	84	107
1962-63.	118	132	68	105	70	85	109
1963-64.	119	134	70	109	71	87	111

Rates of increase in employment

The percentage increase on the average number of persons employed in the preceding year is shown below for each State.

FACTORIES: ANNUAL PERCENTAGE INCREASE OF PERSONS EMPLOYED, STATES, 1959-60 TO 1963-64

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1959-60	3.92	5.20	-0.06	5.15	2.55	4.36	4.02
1960-61	1.05	1.63	-0.22	0.95	2.04	1.67	1.18
1961-62	-2.32	-2.50	-2.70	-0.86	0.72	-0.29	-2.10
1962-63	3.07	5.15	3.31	6.23	4.71	2.28	4.13
1963-64	2.63	3.84	5.43	5.27	4.25	3.51	3.63

Minus sign (—) indicates decrease.

Persons employed, by class of industry

The following table shows the average number of persons employed in factories in each industrial class in Australia.

FACTORIES: AVERAGE NUMBER OF PERSONS EMPLOYED, BY CLASS OF INDUSTRY, AUSTRALIA, 1959-60 TO 1963-64

Class of industry	1959-60	1960-61	1961-62	1962-63	1963-64
1. Treatment of non-metalliferous mine and quarry products	21,778	23,363	23,182	23,889	24,704
2. Bricks, pottery, glass, etc.	24,308	24,612	24,108	25,152	25,656
3. Chemicals, dyes, explosives, paints, oils, grease	47,617	46,833	46,830	47,535	49,023
4. Industrial metals, machines, conveyances	498,522	510,559	497,579	525,312	552,795
5. Precious metals, jewellery, plate	5,308	5,342	5,226	5,308	5,543
6. Textiles and textile goods (not dress)	72,263	71,092	67,949	72,022	73,076
7. Skins and leather (not clothing or footwear)	12,952	12,310	11,955	12,264	12,209
8. Clothing (except knitted)	106,830	107,158	104,655	107,932	108,909
9. Food, drink and tobacco	126,154	126,477	128,590	131,301	134,487
10. Sawmills, joinery, boxes, etc., wood turning and carving	61,651	60,810	57,279	57,114	57,650
11. Furniture of wood, bedding, etc.	22,902	22,219	21,374	21,815	22,545
12. Paper, stationery, printing, bookbinding, etc.	71,672	74,582	73,839	76,263	79,250
13. Rubber	18,663	18,395	17,174	18,916	20,261
14. Musical instruments	936	812	733	749	779
15. Miscellaneous products	23,851	24,757	24,682	26,124	27,422
<i>Total, classes 1 to 15</i>	<i>1,115,407</i>	<i>1,129,321</i>	<i>1,105,155</i>	<i>1,151,696</i>	<i>1,194,309</i>
16. Heat, light and power	16,600	16,031	16,115	15,833	15,611
Grand total	1,132,007	1,145,352	1,121,270	1,167,529	1,209,920

Particulars of the numbers employed in each industrial class are shown for each State in the following table.

FACTORIES: AVERAGE NUMBER OF PERSONS EMPLOYED, BY CLASS OF INDUSTRY, STATES, 1963-64

Class of industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1. Treatment of non-metalliferous mine and quarry products	9,837	7,496	2,441	2,325	1,786	819	24,704
2. Bricks, pottery, glass, etc.	12,542	7,299	1,665	2,203	1,580	367	25,656
3. Chemicals, dyes, explosives, paints, oils, grease	23,994	16,396	1,714	3,215	2,761	943	49,023
4. Industrial metals, machines, conveyances	239,533	171,748	41,392	64,479	24,924	10,719	552,795
5. Precious metals, jewellery, plate	2,254	2,113	331	571	229	45	5,543
6. Textiles and textile goods (not dress)	21,275	42,674	2,297	2,522	882	3,426	73,076
7. Skins and leather (not clothing or footwear)	5,171	3,969	1,229	1,203	590	47	12,209
8. Clothing (except knitted)	44,852	47,168	7,883	5,312	2,984	710	108,909
9. Food, drink and tobacco	41,337	40,832	27,858	11,614	7,791	5,053	134,487
10. Sawmills, joinery, boxes, etc., wood turning and carving	18,944	14,521	9,439	5,457	5,403	3,886	57,650
11. Furniture of wood, bedding, etc.	8,818	6,605	2,877	2,332	1,386	527	22,545
12. Paper, stationery, printing, bookbinding, etc.	32,639	27,075	6,762	4,986	3,105	4,683	79,250
13. Rubber	7,941	8,506	2,024	1,248	413	129	20,261
14. Musical instruments	493	192	28	32	34		779
15. Miscellaneous products	12,718	11,791	751	1,381	670	111	27,422
<i>Total, classes 1 to 15</i>	<i>482,348</i>	<i>408,385</i>	<i>108,691</i>	<i>108,880</i>	<i>54,540</i>	<i>31,465</i>	<i>1,194,309</i>
16. Heat, light and power	5,405	4,735	2,005	1,933	1,165	368	15,611
Grand total	487,753	413,120	110,696	110,813	55,705	31,833	1,209,920

Persons employed, by occupational grouping

In the following table, the average number of persons employed in each State is classified according to occupational grouping.

FACTORIES: AVERAGE NUMBER OF PERSONS EMPLOYED, BY OCCUPATIONAL GROUPING, STATES, 1963-1964

State	Average number of persons employed				
	Working proprietors	Managerial and clerical staff, etc.(a)	Chemists, draftsmen, etc.	Foremen and overseers, workers in factory and others(b)	Total
New South Wales	13,730	65,075	9,483	399,465	487,753
Victoria	12,641	53,637	8,291	338,551	413,120
Queensland	4,684	12,610	1,419	91,983	110,696
South Australia	4,050	14,079	2,087	90,597	110,813
Western Australia	2,940	5,581	705	46,479	55,705
Tasmania	1,001	3,580	622	26,630	31,833
<i>Total males</i>	<i>33,224</i>	<i>94,936</i>	<i>20,319</i>	<i>769,651</i>	<i>918,130</i>
<i>Total females</i>	<i>5,822</i>	<i>59,626</i>	<i>2,288</i>	<i>224,054</i>	<i>291,790</i>
Total persons	39,046	154,562	22,607	993,705	1,209,920

(a) Includes salaried managers and working directors home.

(b) Includes persons working regularly at home.

The term 'outworker' or 'homeworker' has acquired a special meaning in connection with manufacturing industries, and includes only persons to whom work is given out by factories to be done at home. Persons working regularly at home for factories are included in the group foremen, overseers, workers in factory and others, and separate details are not available.

Monthly employment

The following table shows the number of persons (excluding working proprietors) employed in factories in Australia on the last pay-day of each month.

**FACTORIES: MONTHLY EMPLOYMENT, BY SEX, AUSTRALIA, 1959-60 TO 1963-64
(EXCLUDING WORKING PROPRIETORS)**

Month	1959-60	1960-61	1961-62	1962-63	1963-64
MALES					
July	811,912	845,121	809,905	843,123	867,166
August	814,297	846,811	811,299	845,760	869,030
September	817,277	849,102	806,999	847,798	872,381
October	820,178	849,728	816,821	849,866	875,318
November	821,316	849,822	820,987	852,304	879,265
December	817,217	843,597	817,113	847,041	875,159
January	825,444	844,572	822,723	852,999	884,788
February	831,572	839,035	831,156	859,665	893,400
March	835,946	830,339	835,457	862,830	894,393
April	835,836	824,056	832,975	861,107	897,783
May	839,709	818,629	837,562	861,180	898,809
June	841,482	810,778	839,752	863,067	901,507

MANUFACTURING INDUSTRY

FACTORIES: MONTHLY EMPLOYMENT
BY SEX, AUSTRALIA, 1959-60 TO 1963-64—continued

Month	1959-60	1960-61	1961-62	1962-63	1963-64
FEMALES					
July	251,512	270,378	243,925	266,207	274,312
August	253,864	272,564	245,968	267,761	277,063
September	257,906	274,774	248,775	270,536	279,713
October	260,105	275,729	253,573	272,789	283,778
November	262,514	276,314	256,349	273,845	285,296
December	259,753	271,485	255,869	270,355	282,296
January	260,749	267,480	257,832	270,810	283,279
February	267,234	269,105	264,011	276,901	291,966
March	270,364	263,719	267,065	280,285	293,424
April	267,916	256,579	261,611	274,379	290,823
May	269,200	250,238	264,132	273,326	290,301
June	270,402	245,176	264,473	272,074	290,833
PERSONS					
July	1,063,424	1,115,499	1,053,830	1,109,330	1,141,478
August	1,068,161	1,119,375	1,057,267	1,113,521	1,146,093
September	1,075,183	1,123,876	1,055,774	1,118,334	1,152,094
October	1,080,283	1,125,457	1,070,394	1,122,655	1,159,096
November	1,083,830	1,126,136	1,077,336	1,126,149	1,164,561
December	1,076,970	1,115,082	1,072,982	1,117,396	1,157,455
January	1,086,193	1,112,052	1,080,555	1,123,809	1,168,067
February	1,098,806	1,108,140	1,095,167	1,136,566	1,185,366
March	1,106,310	1,094,058	1,102,522	1,143,115	1,187,817
April	1,103,752	1,080,635	1,094,586	1,135,486	1,188,606
May	1,108,909	1,068,867	1,101,694	1,134,506	1,189,110
June	1,111,884	1,055,954	1,104,225	1,135,141	1,192,340

Particulars of the numbers employed in each State on the last pay-day of each month are shown in the following table.

FACTORIES: MONTHLY EMPLOYMENT, BY SEX, STATES, 1963-64
(EXCLUDING WORKING PROPRIETORS)

Month	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
MALES							
July	347,549	277,844	87,739	85,403	43,988	24,643	867,166
August	348,563	278,450	87,702	85,556	44,000	24,759	869,030
September	349,911	279,848	87,750	85,922	44,106	24,844	872,381
October	351,630	280,976	86,860	86,178	44,694	24,980	875,318
November	353,365	282,777	86,299	86,505	45,176	25,143	879,265
December	352,529	283,282	81,592	86,646	45,511	25,599	875,159
January	355,309	285,877	84,272	87,879	45,807	25,644	884,788
February	357,865	288,484	86,728	88,446	46,161	25,716	891,400
March	358,411	288,964	86,448	88,810	46,115	25,645	894,393
April	359,330	289,126	88,610	89,032	45,975	25,710	897,783
May	359,029	289,058	89,906	89,300	45,933	25,583	898,809
June	360,327	290,058	90,489	89,528	45,713	25,392	901,507

FACTORIES: MONTHLY EMPLOYMENT, BY SEX, STATES, 1963-64—*continued*

Month	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
FEMALES							
July . . .	115,236	110,455	18,710	17,976	6,991	4,944	274,312
August . . .	116,457	111,433	19,042	18,029	7,072	5,030	277,063
September . . .	117,903	112,510	18,980	18,302	7,024	4,994	279,713
October . . .	119,919	114,400	18,713	18,495	7,181	5,070	283,778
November . . .	120,696	114,776	18,628	18,726	7,243	5,227	285,296
December . . .	118,309	113,796	18,226	19,319	7,255	5,391	282,296
January . . .	117,691	115,246	18,147	19,599	7,156	5,440	283,279
February . . .	120,649	118,673	19,261	20,324	7,398	5,661	291,966
March . . .	121,271	119,386	19,075	19,984	7,562	6,146	293,424
April . . .	120,921	117,548	18,623	19,774	7,690	6,267	290,823
May . . .	121,075	116,874	19,076	19,657	7,513	6,106	290,301
June . . .	121,707	117,036	19,248	19,554	7,387	5,901	290,833

PERSONS							
July . . .	462,785	388,299	106,449	103,379	50,979	29,587	1,141,478
August . . .	465,020	389,883	106,744	103,585	51,072	29,789	1,146,093
September . . .	467,814	392,358	106,730	104,224	51,130	29,838	1,152,094
October . . .	471,549	395,376	105,573	104,673	51,875	30,050	1,159,096
November . . .	474,061	397,553	104,927	105,231	52,419	30,370	1,164,561
December . . .	470,838	397,078	99,818	105,965	52,766	30,990	1,157,455
January . . .	473,000	401,123	102,419	107,478	52,963	31,084	1,168,067
February . . .	478,514	407,157	105,989	108,770	53,559	31,377	1,185,366
March . . .	479,682	408,350	105,523	108,794	53,677	31,791	1,187,817
April . . .	480,251	406,674	107,233	108,806	53,665	31,977	1,188,606
May . . .	480,104	405,932	108,982	108,957	53,446	31,689	1,189,110
June . . .	482,034	407,094	109,737	109,082	53,100	31,293	1,192,340

Distribution of employees according to age

The following table shows the number of each sex employed in Australia in each age group on the last pay day in June.

FACTORIES: DISTRIBUTION OF EMPLOYEES, BY AGE AND SEX, AUSTRALIA
JUNE, 1960 TO JUNE, 1964
(EXCLUDING WORKING PROPRIETORS)

June—	Males			Females			Persons		
	Under 16 years	16 to 20 years	21 years and over	Under 16 years	16 to 20 years	21 years and over	Under 16 years	16 to 20 years	21 years and over
1960 . . .	8,627	82,066	750,789	7,457	48,845	214,100	16,084	130,911	964,889
1961 . . .	8,849	79,981	721,948	7,162	44,457	193,557	16,011	124,438	915,505
1962 . . .	9,176	86,548	744,028	8,764	48,847	206,862	17,940	135,395	950,890
1963 . . .	8,736	92,211	762,120	7,852	51,803	212,419	16,588	144,014	974,539
1964 . . .	8,632	100,164	792,711	7,130	55,533	228,170	15,762	155,697	1 020,881

Distribution of sexes in factories

Average number of males and females employed

The following table shows the average number of males and females employed in factories in each State.

FACTORIES: MALES AND FEMALES EMPLOYED, STATES, 1959-60 TO 1963-64

State	1959-60	1960-61	1961-62	1962-63	1963-64
MALES					
New South Wales . . .	351,208	355,392	349,154	358,116	366,250
Victoria	275,645	280,207	273,949	285,685	295,440
Queensland	86,985	86,488	84,130	86,536	91,123
South Australia	81,312	81,898	81,803	86,655	90,933
Western Australia . . .	42,957	43,836	44,193	46,252	48,163
Tasmania	24,408	24,811	24,742	25,453	26,221
Australia	862,515	872,632	857,971	888,697	918,130
FEMALES					
New South Wales . . .	115,931	116,669	111,933	117,133	121,503
Victoria	106,199	107,843	104,400	112,142	117,680
Queensland	17,708	17,974	17,507	18,462	19,573
South Australia	17,706	18,057	17,291	18,610	19,880
Western Australia . . .	6,694	6,830	6,840	7,183	7,542
Tasmania	5,254	5,347	5,328	5,302	5,612
Australia	269,492	272,720	263,299	278,832	291,790

Rate of annual variation for each sex

The percentages of increase or decrease on the average numbers of males and females employed in the preceding year are shown in the following table.

FACTORIES: ANNUAL PERCENTAGE INCREASES OF MALES AND FEMALES EMPLOYED, STATES, 1959-60 TO 1963-64

State	1959-60	1960-61	1961-62	1962-63	1963-64
MALES					
New South Wales . . .	3.07	1.19	-1.76	2.57	2.27
Victoria	4.47	1.66	-2.23	4.28	3.41
Queensland	-0.54	-0.57	-2.73	2.86	5.30
South Australia	5.02	0.72	-0.12	5.93	4.94
Western Australia . . .	2.40	2.05	0.81	4.66	4.13
Tasmania	3.85	1.65	-0.28	2.87	3.02
Australia	3.30	1.17	-1.68	3.58	3.31
FEMALES					
New South Wales . . .	6.59	0.64	-4.06	4.65	3.73
Victoria	7.13	1.55	-3.19	7.42	4.94
Queensland	2.36	1.50	-2.66	5.45	6.02
South Australia	5.78	1.98	-4.24	7.63	6.82
Western Australia . . .	3.53	2.03	0.15	5.01	5.00
Tasmania	6.79	1.74	-0.36	-0.49	5.85
Australia	6.39	1.20	-3.45	5.90	4.65

Minus sign (-) indicates decrease.

Masculinity of persons employed

The following table shows the proportion of males to females employed in factories in each State.

**FACTORIES: MASCULINITY(a) OF PERSONS EMPLOYED
STATES, 1959-60 TO 1963-64**

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1959-60.	303	259	491	459	642	465	320
1960-61.	305	260	481	454	642	464	320
1961-62.	312	262	481	473	646	464	326
1962-63.	306	254	469	466	644	480	319
1963-64.	301	251	466	457	639	467	315

(a) Number of males per 100 females.

Employment of females in particular industries

The majority of females in manufacturing industries are employed in four classes, namely: 4., Industrial metals, machines, etc.; 6., Textiles; 8., Clothing; and 9., Food, drink and tobacco. In 1963-64 these industries accounted for 78.02 per cent of all females in factories. In two classes only did the number of females exceed the number of males—in Class 6. Textiles, where there were 142 females to every 100 males, and in Class 8., Clothing, with 260 females to every 100 males. The following table shows the average number of male and females employed in each of the four classes.

**MALES AND FEMALES EMPLOYED IN
PARTICULAR INDUSTRIES, STATES, 1963-64**

Class of industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Males—							
4. Industrial metals, etc.	207,684	148,493	38,430	57,032	23,637	10,125	485,401
6. Textiles and textile goods (not dress)	8,703	17,374	869	1,237	471	1,565	30,219
8. Clothing (except knitted)	11,501	13,723	2,007	1,812	881	305	30,229
9. Food, drink and tobacco	27,978	27,541	22,890	7,936	5,933	3,473	95,751
All other classes	110,384	88,309	26,927	22,916	17,241	10,753	276,530
Total males	366,250	295,440	91,123	90,933	48,163	26,221	918,130
Females—							
4. Industrial metals, etc.	31,849	23,255	2,962	7,447	1,287	594	67,394
6. Textiles and textile goods (not dress)	12,572	25,300	1,428	1,285	411	1,861	42,857
8. Clothing (except knitted)	33,351	33,445	5,876	3,500	2,103	405	78,680
9. Food, drink and tobacco	13,359	13,291	4,968	3,678	1,860	1,580	38,736
All other classes	30,372	22,389	4,339	3,970	1,881	1,172	64,123
Total females	121,503	117,680	19,573	19,880	7,542	5,612	291,790

Children employed in factories**Number of children employed**

In the returns for the various States the term 'child' denotes any person under sixteen years of age. The following table shows the number of children of each sex employed in manufacturing industries in June of each year.

FACTORIES: CHILDREN(a) EMPLOYED, STATES, JUNE 1962 TO JUNE 1964

State	June 1962			June 1963			June 1964		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
New South Wales	2,955	2,646	5,601	2,623	2,196	4,819	2,854	2,215	5,069
Victoria	2,625	3,049	5,674	2,444	2,653	5,097	2,072	2,207	4,279
Queensland	1,521	1,564	3,085	1,665	1,630	3,295	1,987	1,494	3,481
South Australia	953	993	1,946	893	872	1,765	677	721	1,398
Western Australia	1,031	411	1,442	1,016	432	1,448	919	397	1,316
Tasmania	91	101	192	95	69	164	123	96	219
Australia	9,176	8,764	17,940	8,736	7,852	16,588	8,632	7,130	15,762

(a) Under sixteen years of age.

Industries employing children

The distribution of children employed in factories and the proportion of children employed to total employees, by the main classes of industry employing persons under sixteen years of age, are shown in the following table.

**FACTORIES: CHILDREN(a) EMPLOYED, BY SEX, AND CLASS OF INDUSTRY
AUSTRALIA, JUNE 1964**

Class of industry	Children employed (a)		Total employees (b)		Proportion (per cent) of children employed to total employees (b)	
	Males	Females	Males	Females	Males	Females
Industrial metals, machines, conveyances .	4,144	628	483,129	70,106	0.86	0.90
Textiles and textile goods (not dress) .	368	1,203	29,964	42,846	1.23	2.81
Clothing (except knitted)	478	3,225	25,317	76,705	1.89	4.20
Food, drink and tobacco	1,112	819	92,312	36,638	1.20	2.24
Sawmills, joinery, boxes, etc.	840	74	51,051	3,528	1.65	2.10
Furniture of wood, bedding, etc.	412	102	16,210	4,828	2.54	2.11
Paper, stationery, printing, bookbinding etc.	507	594	57,431	21,004	0.88	2.83
All other industries	771	485	146,093	35,178	0.53	1.38
Total	8,632	7,130	901,507	290,833	0.96	2.45

(a) Under sixteen years of age. (b) Excludes working proprietors.

Apprenticeship

Acts are in force in all States for the regulation of the age at which children may be employed in gainful occupations. Legislative provision is also made for the regulation of apprenticeship under the various State Factories Acts or Arbitration Acts. These Acts, while laying down general principles, leave to the wages tribunals the actual determination of the conditions under which apprentices may be employed.

Power equipment in factories

Since 1936-37 statistics of power equipment in factories relate to the 'rated horse-power' of engines ordinarily in use and engines in reserve or idle, omitting obsolete engines. In addition, particulars of the power equipment of central electric stations are collected in greater detail. To avoid duplication it is essential that some distinction should be made between central electric stations and other classes of industries. In the following tables central electric stations have been treated separately from other factories.

Rated horse-power of engines in factories other than central electric stations

The following table shows the total number of factories and the total rated horse-power of engines and electric motors ordinarily in use and in reserve or idle during 1963-64.

**FACTORIES(a): TOTAL RATED HORSE-POWER OF ENGINES
AND ELECTRIC MOTORS, STATES, 1963-64**

State	Factories(a)	Rated horse-power of engines and motors	
		Ordinarily in use(b)	In reserve or idle (omitting obsolete)
New South Wales	23,592	2,900,288	391,525
Victoria	17,568	1,781,362	240,169
Queensland	5,903	637,514	93,429
South Australia	5,797	560,601	63,452
Western Australia	4,515	327,425	49,386
Tasmania	1,731	314,636	46,830
Australia	59,106	6,521,826	884,791

(a) Includes gas works but excludes central electric stations, details of which are shown on pp. 108-9. (b) Excludes motors driven by electricity generated in factories not classified as central electric stations.

Rated horse-power of engines and electric motors ordinarily in use, by type

Particulars of the types and the total rated horse-power of engines, etc., ordinarily in use in each State are given below.

FACTORIES(a): TOTAL RATED HORSE-POWER OF ENGINES AND ELECTRIC MOTORS ORDINARILY IN USE, BY TYPE, STATES, 1963-64

State	Steam		Internal combustion			Water	Motors driven by electricity		Total (b)(c)
	Reciprocating	Turbine	Gas	Petrol or other light oils	Heavy oils		Purchased	Own generation (d)	
New South Wales . .	51,642	230,519	5,868	37,894	17,982	..	2,556,383	123,458	2,900,288
Victoria	17,081	98,724	2,665	48,651	1,980	840	1,611,421	60,992	1,781,362
Queensland	72,788	79,744	1,771	20,080	7,278	..	455,853	121,707	637,514
South Australia . .	2,771	16,575	393	10,113	1,487	..	529,262	21,672	560,601
Western Australia .	9,734	13,559	3,395	23,088	4,205	..	273,444	7,470	327,425
Tasmania	612	..	..	11,547	200	..	302,277	281	314,636
Australia	154,628	439,121	14,092	151,373	33,132	840	5,728,640	335,580	6,521,826

(a) Includes gas works but excludes central electric stations, details of which are shown on pp. 108-9.

(b) Excludes motors driven by electricity generated in factories not classified as central electric stations.

(c) Excludes particulars in column (d).

In the following table details of the total rated horse-power of the various types of engines in use are given for Australia.

FACTORIES(a): TOTAL RATED HORSE-POWER OF ENGINES AND ELECTRIC MOTORS ORDINARILY IN USE, BY TYPE, AUSTRALIA, 1959-60 TO 1963-64

Year	Steam		Internal combustion			Water	Motors driven by electricity		Total (b)(c)
	Reciprocating	Turbine	Gas	Petrol or other light oils	Heavy oils		Purchased	Own generation (d)	
1959-60	188,892	328,116	9,484	137,835	48,441	1,092	4,558,175	302,091	5,272,035
1960-61	177,892	334,908	9,045	140,384	42,238	1,092	4,843,868	293,051	5,549,427
1961-62	160,287	359,631	11,687	137,820	40,142	1,092	5,025,141	308,740	5,744,800
1962-63	165,312	397,213	13,618	142,755	36,906	900	5,376,052	322,828	6,132,786
1963-64	154,628	439,121	14,092	151,373	33,132	840	5,728,640	335,580	6,521,826

(a) Includes gas works but excludes central electric stations, details of which are shown on pp. 108-9.

(b) Excludes motors driven by electricity generated in factories not classified as central electric stations.

(c) Excludes particulars in column (d).

Rated horse-power of engines and electric motors ordinarily in use, by class of industry

The next table shows the total rated horse-power of engines and electric motors ordinarily in use in the various classes of industry in each State.

FACTORIES(a): TOTAL RATED HORSE-POWER OF ENGINES AND ELECTRIC MOTORS ORDINARILY IN USE(b), BY CLASS OF INDUSTRY, STATES, 1963-64

Class of industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1. Treatment of non-metalliferous mine and quarry products	112,415	99,735	29,474	39,928	22,699	21,292	325,543
2. Bricks, pottery, glass, etc.	72,801	52,295	12,580	14,144	14,220	3,341	169,381
3. Chemicals, dyes, explosives, paints, oils, grease	292,477	201,651	13,271	39,174	56,344	17,200	620,117
4. Industrial metals, machines, conveyances	1,602,430	609,022	131,766	267,095	99,737	67,663	2,777,713
5. Precious metals, jewellery, plate	4,699	3,972	533	1,185	769	96	11,254
6. Textiles and textile goods (not dress)	63,664	113,140	8,036	8,592	3,595	10,350	207,377
7. Skins and leather (not clothing or footwear)	19,237	16,667	6,399	6,360	3,059	507	52,229
8. Clothing (except knitted)	28,369	29,761	5,370	4,438	2,615	812	71,365
9. Food, drink and tobacco	244,900	238,119	260,846	69,548	49,584	28,573	891,570
10. Sawmills, joinery, boxes, etc., wood turning and carving	195,527	133,933	118,619	55,149	56,441	53,284	612,953
11. Furniture of wood, bedding, etc.	20,037	14,769	7,941	7,590	4,290	1,589	56,216
12. Paper, stationery, printing, book-binding, etc.	114,528	122,074	26,529	27,485	6,636	109,113	406,365
13. Rubber	62,965	77,013	11,870	9,646	4,320	510	166,324
14. Musical instruments	1,244	307	52	14	13		1,630
15. Miscellaneous products	45,633	42,613	1,158	3,681	1,671	230	94,986
<i>Total, classes 1 to 15</i>	<i>2,880,926</i>	<i>1,755,071</i>	<i>634,444</i>	<i>554,029</i>	<i>325,993</i>	<i>314,560</i>	<i>6,465,023</i>
16. Gas works	19,362	26,291	3,070	6,572	1,432	76	56,803
Grand total	2,900,288	1,781,362	637,514	560,601	327,425	314,636	6,521,826

(a) Excludes central electric stations, details of which are shown below.
electricity generated in factories not classified as central electric stations.

(b) Excludes motors driven by

Capacity of engines and generators installed in central electric stations, by type

Particulars of the type and the capacity of engines and generators installed in central electric stations in Australia in 1963-64 are given in the following table.

**CENTRAL ELECTRIC STATIONS: POWER EQUIPMENT, BY TYPE
AUSTRALIA, 1963-64**

Equipment		Capacity of engines and generators						
		Steam		Internal combustion			Water	Total
		Reciprocating	Turbine	Gas	Petrol or other light oils	Heavy oils		
Engines installed	rated H.P.	1,150	7,662,423	10,133	44,349	277,150	2,843,695	10,838,900
Generators installed—								
Kilowatt capacity—								
Total installed	kW	760	5,708,472	7,035	30,059	187,043	2,049,810	7,983,179
Effective capacity	"	700	5,513,231	4,584	25,641	168,747	2,014,301	7,727,204
Horse-power equivalent—								
Total installed	H.P.	1,019	7,652,092	9,430	40,293	250,728	2,747,729	10,701,291
Effective capacity	"	938	7,390,376	6,145	34,371	226,202	2,700,130	10,358,162

Details of the capacity of engines and generators installed in central electric stations in each State are given in the next table.

**CENTRAL ELECTRIC STATIONS: NUMBER AND POWER EQUIPMENT
STATES, 1963-64**

Equipment	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Central electric stations . . . No.	50	29	52	29	94	15	269
Engines installed . . . rated H.P.	4,726,267	2,213,474	1,380,746	895,731	544,648	1,078,034	10,838,900
Generators installed—							
Kilowatt capacity—							
Total installed . . . kW	3,495,053	1,660,828	1,007,984	668,907	382,417	767,990	7,983,179
Effective capacity . . . „	3,418,063	1,640,697	869,386	657,858	376,040	765,160	7,727,204
Horse-power equivalent—							
Total installed . . . H.P.	4,685,049	2,226,307	1,351,182	896,656	512,622	1,029,475	10,701,291
Effective capacity . . . „	4,581,845	2,199,321	1,165,395	881,845	504,074	1,025,682	10,358,162

Value of production, materials used, salaries and wages

In all tables relating to salaries and wages paid in factories the amounts drawn by working proprietors are excluded.

The gross value of factory output for 1963-64 was \$12,641 million, of which \$6,933 million was the value of the materials used, including containers, etc., tools replaced, and repairs to plant and buildings, and \$437 million the value of the power, fuel, light, water and lubricating oil used. The difference between the sum of the last two amounts and the gross value of output, namely, \$5,271 million, represents the net value of factory production, defined as 'the value of consumable commodities produced during the year deducting, so far as possible, the value of goods consumed in process of production'. Depreciation, however, is not deducted (*see p. 114*). The gross value of factory output and the value of materials used each contain inherent elements of duplication, as the output of some factories becomes the materials used in other factories.

Salaries and wages paid

By class of industry. The amounts of salaries and wages paid in the various classes of industry in each State are shown in the following table.

**FACTORIES: SALARIES AND WAGES PAID, BY CLASS OF INDUSTRY
STATES, 1963-64
(\$'000)**

Class of industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1. Treatment of non-metalliferous mine and quarry products . . .	25,380	19,378	5,729	5,637	3,966	1,941	62,031
2. Bricks, pottery, glass, etc. . .	30,094	17,803	3,655	5,221	3,460	810	61,043
3. Chemicals, dyes, explosives, paint, oils, grease . . .	61,333	43,892	3,854	8,044	6,824	2,680	126,627
4. Industrial metals, machines, conveyances . . .	578,057	409,154	83,917	147,695	49,141	25,513	1,293,477
5. Precious metals, jewellery, plate . . .	4,225	4,242	551	886	310	66	10,280
6. Textiles and textile goods (not dress) . . .	39,465	79,140	3,458	4,757	1,468	6,156	134,444
7. Skins and leather (not clothing or footwear) . . .	10,470	7,889	2,390	2,454	1,128	100	24,431
8. Clothing (except knitted) . . .	66,792	75,232	9,405	7,197	3,369	975	162,970
9. Food, drink and tobacco . . .	87,378	86,952	60,150	22,098	15,065	10,174	281,817
10. Sawmills, joinery, boxes, etc. wood turning and carving . . .	40,032	30,716	16,893	10,366	10,267	7,660	115,934
11. Furniture of wood, bedding, etc. . .	17,720	12,489	4,927	3,943	2,212	839	42,130
12. Paper, stationery, printing, bookbinding, etc. . .	78,249	65,204	13,967	11,095	6,412	12,096	187,023
13. Rubber . . .	19,720	20,262	3,778	3,227	767	249	48,003
14. Musical instruments . . .	1,053	403	41	56	53	183	1,606
15. Miscellaneous products . . .	26,931	25,655	1,201	2,403	1,039	183	57,412
<i>Total, classes 1 to 15</i> . . .	<i>1,086,899</i>	<i>898,411</i>	<i>213,916</i>	<i>235,079</i>	<i>105,481</i>	<i>69,442</i>	<i>2,609,228</i>
16. Heat, light and power . . .	14,122	14,013	4,846	5,237	3,034	1,140	42,392
Grand total . . .	1,101,021	912,424	218,762	240,316	108,515	70,582	2,651,620

Totals and averages. The following table shows the total amount of salaries and wages paid, and the average amount paid per employee in each State. The figures exclude working proprietors and the amounts drawn by them.

In comparing the figures in the following table regard should be paid to the nature of certain industries which are carried on to a greater extent in some States than in others. In Victoria, for instance, a large number of hands are employed in Class 8., Clothing, comprising a relatively high percentage of women and children.

**FACTORIES: TOTAL AND AVERAGE SALARIES AND WAGES PAID, STATES
1959-60 TO 1963-64**

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Total amount paid (\$'000)—							
1959-60 . . .	922,288	741,034	178,734	190,476	83,286	57,572	2,173,390
1960-61 . . .	980,032	776,000	184,318	197,966	90,254	60,660	2,289,230
1961-62 . . .	976,138	770,378	186,692	199,062	92,840	61,440	2,286,550
1962-63 . . .	1,027,216	838,800	195,832	220,066	99,880	64,838	2,446,632
1963-64 . . .	1,101,021	912,424	218,762	240,316	108,515	70,582	2,651,620
Average per employee (\$)—							
1959-60 . . .	2,042.06	2,011.26	1,792.18	1,991.92	1,780.86	2,008.54	1,992.34
1960-61 . . .	2,144.30	2,070.28	1,854.40	2,056.66	1,884.08	2,082.14	2,072.54
1961-62 . . .	2,184.76	2,107.30	1,927.68	2,095.12	1,925.14	2,114.58	2,114.22
1962-63 . . .	2,228.48	2,178.46	1,952.82	2,175.40	1,975.24	2,184.92	2,169.64
1963-64 . . .	2,322.72	2,278.33	2,063.50	2,250.91	2,056.55	2,289.28	2,264.65

The following table shows the total and average salaries and wages paid to males and females.

**FACTORIES: TOTAL AND AVERAGE SALARIES AND WAGES PAID—
MALES AND FEMALES, STATES, 1959-60 TO 1963-64**

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
MALES							
Total amount paid (\$'000)—							
1959-60 . . .	774,332	606,028	160,690	170,666	76,552	51,236	1,839,504
1960-61 . . .	825,120	637,230	165,338	177,244	82,950	53,904	1,941,786
1961-62 . . .	823,670	631,282	167,526	178,770	85,406	54,496	1,941,150
1962-63 . . .	864,504	685,514	175,488	197,820	91,916	57,836	2,073,078
1963-64 . . .	927,807	747,177	196,484	215,127	99,978	63,007	2,249,580
Average per male employee (\$)—							
1959-60 . . .	2,291.30	2,291.28	1,943.30	2,176.42	1,901.70	2,182.84	2,223.60
1960-61 . . .	2,408.40	2,366.92	2,012.76	2,250.42	2,010.12	2,261.78	2,317.64
1961-62 . . .	2,444.90	2,396.72	2,093.00	2,280.66	2,052.76	2,293.02	2,355.60
1962-63 . . .	2,499.42	2,491.20	2,126.94	2,376.84	2,109.30	2,367.00	2,425.18
1963-64 . . .	2,618.05	2,621.00	2,254.33	2,456.73	2,200.83	2,491.24	2,542.17
FEMALES							
Total amount paid (\$'000)—							
1959-60 . . .	147,956	135,006	18,044	19,810	6,734	6,336	333,886
1960-61 . . .	154,912	138,770	18,980	20,722	7,394	6,756	347,444
1961-62 . . .	152,468	139,096	19,166	20,292	7,434	6,944	345,400
1962-63 . . .	162,712	153,286	20,344	22,246	7,964	7,002	373,554
1963-64 . . .	173,214	165,247	22,278	25,189	8,537	7,575	402,040
Average per female employee (\$)—							
1959-60 . . .	1,301.64	1,298.76	1,057.30	1,151.16	1,033.90	1,220.50	1,266.50
1960-61 . . .	1,353.66	1,314.08	1,100.26	1,184.36	1,100.50	1,274.52	1,302.62
1961-62 . . .	1,387.30	1,360.94	1,140.36	1,220.58	1,122.96	1,312.92	1,341.62
1962-63 . . .	1,414.04	1,395.16	1,145.24	1,240.48	1,141.10	1,335.98	1,369.06
1963-64 . . .	1,447.87	1,431.88	1,181.78	1,312.08	1,163.40	1,367.14	1,405.89

The following table shows, by class of industry, the amounts paid to managerial and clerical staff, including salaried managers and working directors, chemists, draftsmen and other laboratory and research staff, and those paid to other employees. Amounts drawn by working proprietors are excluded in all cases.

FACTORIES: SALARIES AND WAGES PAID TO MANAGERS, CLERICAL STAFF ETC., AND OTHER EMPLOYEES, BY CLASS OF INDUSTRY, AUSTRALIA, 1963-64

Class of industry	Managers, clerical staff, chemists, draftsmen, etc.		All other employees	
	Males	Females	Males	Females
	\$'000	\$'000	\$'000	\$'000
1. Treatment of non-metalliferous mine and quarry products	9,636	1,625	50,479	291
2. Bricks, pottery, glass, etc.	6,219	1,426	51,345	2,054
3. Chemicals, dyes, explosives, paints, oils, grease	32,857	7,332	77,241	9,197
4. Industrial metals, machines, conveyances	209,331	41,226	986,162	56,758
5. Precious metals, jewellery, plate	1,291	451	7,529	1,008
6. Textiles and textile goods (not dress)	14,033	5,544	60,749	54,118
7. Skins and leather (not clothing or footwear)	2,933	669	16,753	4,076
8. Clothing (except knitted)	12,936	6,701	47,196	96,137
9. Food, drink and tobacco	42,857	12,898	186,128	39,934
10. Sawmills, joinery, boxes, etc., wood turning and carving	13,741	2,942	97,578	1,673
11. Furniture of wood, bedding, etc.	4,863	1,798	30,754	4,715
12. Paper, stationery, printing, bookbinding, etc.	27,879	8,649	130,355	20,140
13. Rubber	7,344	1,609	34,488	4,562
14. Musical instruments	206	49	1,134	217
15. Miscellaneous products	9,422	2,989	33,948	11,053
Total, classes 1 to 15	395,548	95,908	1,811,839	305,933
16. Heat, light and power	4,623	147	37,570	52
Grand total	400,171	96,055	1,849,409	305,985
Average paid per employee	\$ 3,472.05	\$ 1,551.42	\$ 2,402.92	\$ 1,365.68

Power, fuel and light used

By class of industry. The expenditure by factories on power, fuel and light, including the value of lubricants and water, is shown in the following table for each State.

FACTORIES: VALUE OF POWER, FUEL AND LIGHT USED(a)
BY CLASS OF INDUSTRY, STATES, 1963-64
(\$'000)

Class of industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1. Treatment of non-metalliferous mine and quarry products	11,339	6,100	2,292	2,364	1,220	931	24,246
2. Bricks, pottery, glass, etc.	9,192	5,904	1,301	1,658	1,358	349	19,762
3. Chemicals, dyes, explosives, paints, oils, grease	19,913	15,169	621	3,324	5,190	1,283	45,500
4. Industrial metals, machines, conveyances	103,153	25,828	6,532	11,921	3,764	7,645	158,843
5. Precious metals, jewellery, plate	340	347	39	95	25	4	850
6. Textiles and textile goods (not dress)	3,572	5,935	200	460	109	564	10,840
7. Skins and leather (not clothing or footwear)	895	878	210	294	139	12	2,428
8. Clothing (except knitted)	2,168	2,093	402	316	167	81	5,227
9. Food, drink and tobacco	13,875	13,639	7,257	3,027	2,448	1,331	41,577
10. Sawmills, joinery, boxes, etc. wood turning and carving	3,182	1,872	1,362	687	671	780	8,554
11. Furniture of wood, bedding, etc.	493	302	115	109	55	22	1,096
12. Paper, stationery, printing, bookbinding, etc.	4,550	5,406	1,003	1,320	277	3,287	15,843
13. Rubber	2,373	2,983	426	379	86	37	6,284
14. Musical instruments	74	19	1	1	1	..	96
15. Miscellaneous products	1,962	2,467	43	131	63	6	4,672
Total, classes 1 to 15	177,081	88,942	21,804	26,086	15,573	16,332	345,818
16. Heat, light and power	33,076	25,706	15,659	8,686	8,176	32	91,335
Grand total	210,157	114,648	37,463	34,772	23,749	16,364	437,153

(a) Includes value of lubricants and water.

Value of items. The following table shows the value of the various items of power, fuel and light used in factories in each State.

FACTORIES: VALUE OF ITEMS OF POWER, FUEL AND LIGHT USED^(a)
STATES, 1963-64
 (\$'000)

Item of power, fuel, etc.	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Coal, black	37,859	3,338	19,305	(b) 7,193	5,172	1,368	74,235
" brown . . . . .	..	14,736	..	..	..	..	14,736
Brown coal briquettes . . . . .	..	12,543	..	..	..	..	12,543
Coke	39,395	1,499	867	4,570	359	645	47,335
Wood	777	820	613	747	745	158	3,860
Fuel oil	23,426	22,662	3,642	7,320	9,060	3,251	69,361
Tar (fuel)	2,770	196	36	203	18	26	3,249
Electricity	64,201	45,455	10,056	11,212	5,658	9,697	146,279
Gas	21,250	4,059	504	650	196	73	26,732
Other (charcoal, etc.)	8,112	1,505	223	906	1,238	550	12,534
Water	8,808	5,427	1,267	1,295	747	403	17,947
Lubricating oils	3,558	2,409	950	676	556	193	8,342
Total	210,157	114,648	37,463	34,772	23,749	16,364	437,153

(a) Includes value of lubricants and water.
 bituminous Leigh Creek coal.

(b) Includes \$5,196,458, the value of 1,556,986 tons of sub-

Quantity of fuel used. The following table shows the quantity of fuel used in factories in each State.

FACTORIES: QUANTITIES OF FUEL USED, STATES, 1963-64

Fuel	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Coal, black '000 tons	6,976	316	2,109	(a) 1,744	670	145	11,960
" brown " "	..	13,461	..	..	..	..	13,461
Brown coal briquettes " "	..	1,095	..	..	..	..	1,095
Coke " "	2,783	60	24	258	13	19	3,157
Wood " "	184	232	151	273	226	38	1,104
Fuel oil '000 gals.	287,274	293,639	29,338	97,992	118,139	38,858	865,240
Tar (fuel) " "	183	9	2	15	1	2	212

(a) Includes 1,556,986 tons of Leigh Creek coal.

Total value. The next table shows the total amounts expended on power, fuel and light during the last five years.

FACTORIES: VALUE OF POWER, FUEL AND LIGHT USED^(a)
STATES, 1959-60 TO 1963-64
 (\$'000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1959-60	174,216	94,280	30,366	30,186	20,142	12,440	361,630
1960-61	184,524	98,430	31,086	30,368	21,232	12,874	378,514
1961-62	187,820	99,088	32,130	30,646	20,736	13,140	383,560
1962-63	197,510	103,550	35,198	32,072	21,720	14,436	404,486
1963-64	210,157	114,648	37,463	34,772	23,749	16,364	437,153

(a) Includes value of lubricants and water.

Value of materials used

By class of industry. The value of materials used (which includes the value of containers, packing, etc., the cost of tools replaced, and repairs to plant) in factories in Australia in 1963-64 reached \$6,933 million, or 54.8 per cent of the value of the final output (see page 114). The following table shows the value of the materials used in various classes of industry in each State.

FACTORIES: VALUE OF MATERIALS USED, BY CLASS OF INDUSTRY
STATES, 1963-64
(\$'000)

Class of industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1. Treatment of non-metalliferous mine and quarry products	98,998	50,007	14,374	16,605	8,740	4,879	193,603
2. Bricks, pottery, glass, etc.	30,596	17,243	2,824	6,312	2,086	479	59,540
3. Chemicals, dyes, explosives, paints, oils, grease	326,089	253,005	23,134	41,064	75,509	6,465	725,266
4. Industrial metals, machines, conveyances	1,332,849	694,787	214,262	331,906	85,677	53,761	2,713,242
5. Precious metals, jewellery, plate	5,300	4,693	375	863	194	34	11,459
6. Textiles and textile goods (not dress)	97,002	211,476	9,864	10,914	7,724	17,634	354,614
7. Skins and leather (not clothing or footwear)	31,452	21,129	6,189	14,691	1,543	637	75,641
8. Clothing (except knitted)	120,842	120,078	11,340	8,552	4,119	874	265,805
9. Food, drink and tobacco	421,877	473,307	443,432	101,343	76,138	44,750	1,560,847
10. Sawmills, joinery, boxes, etc., wood turning and carving	94,845	65,472	32,844	26,261	18,572	17,942	255,936
11. Furniture of wood, bedding, etc.	39,104	26,989	12,260	8,696	5,479	1,754	94,282
12. Paper, stationery, printing, book-binding, etc.	150,953	139,993	26,177	18,466	10,031	21,408	367,028
13. Rubber	47,319	46,545	8,593	4,943	1,447	508	109,355
14. Musical instruments	2,503	437	50	23	18	..	3,031
15. Miscellaneous products.	44,830	52,664	1,545	4,866	1,725	112	105,742
Total, classes 1 to 15	2,844,559	2,177,825	807,263	595,505	299,002	171,237	6,895,391
16. Heat, light and power	15,063	10,512	5,661	4,153	1,796	893	38,078
Grand total	2,859,622	2,188,337	812,924	599,658	300,798	172,130	6,933,469

Total amount. The following table shows the total value of materials used in factories for the last five years.

FACTORIES: VALUE OF MATERIALS USED, STATES, 1959-60 TO 1963-64
(\$'000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1959-60	2,412,510	1,772,750	582,776	415,272	238,276	135,218	5,556,802
1960-61	2,472,968	1,815,548	611,354	432,764	266,646	138,136	5,737,416
1961-62	2,447,332	1,834,742	610,006	425,122	270,170	142,534	5,729,906
1962-63	2,629,648	2,001,332	713,728	502,860	279,756	156,076	6,283,400
1963-64	2,859,622	2,188,337	812,924	599,658	300,798	172,130	6,933,469

Value of output

By classes of industry. The value of the output of factories in the various classes in each State in 1963-64 is shown in the following table. It represents the selling value at the factory (excluding delivery costs and charges) of goods made or processed during the year, including by-products. In addition, it includes the amount received for other work done, such as repair work, assembling and making up for customers. The difference between the sum of the values of the materials and of the power, fuel and light used, and the value of output is the net value of factory production (see p. 114).

FACTORIES: VALUE OF OUTPUT, BY CLASS OF INDUSTRY, STATES, 1963-64
(\$'000)

Class of industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1. Treatment of non-metalliferous mine and quarry products . . .	167,645	100,887	31,657	35,734	20,188	10,584	366,695
2. Bricks, pottery, glass, etc. . .	93,777	56,654	11,538	18,620	10,181	2,261	193,031
3. Chemicals, dyes, explosives, paints, oils, grease . . .	563,765	421,160	36,952	70,808	113,829	14,896	1,221,410
4. Industrial metals, machines, conveyances . . .	2,455,895	1,375,608	359,600	570,409	173,906	110,657	5,046,075
5. Precious metals, jewellery, plate . . .	13,351	12,614	1,345	2,648	934	170	31,062
6. Textiles and textile goods (not dress) . . .	181,114	360,874	16,025	19,812	10,292	28,698	616,815
7. Skins and leather (not clothing or footwear) . . .	49,212	35,770	11,124	18,580	3,545	806	119,037
8. Clothing (except knitted) . . .	242,106	249,189	27,710	20,617	10,044	2,781	552,447
9. Food, drink and tobacco . . .	671,974	703,267	594,577	151,229	113,316	68,550	2,302,913
10. Sawmills, joinery, boxes, etc., wood turning and carving . . .	169,534	121,305	63,884	46,027	37,714	32,304	470,768
11. Furniture of wood, bedding, etc. . .	71,344	49,826	21,151	15,957	9,768	3,243	171,289
12. Paper, stationery, printing, book-binding, etc. . .	316,836	276,944	53,258	41,495	23,664	50,412	762,609
13. Rubber . . .	80,276	87,646	17,057	11,969	3,214	1,181	201,343
14. Musical instruments . . .	6,613	1,063	143	114	95	..	8,028
15. Miscellaneous products . . .	97,724	105,127	3,718	10,421	3,701	393	221,084
<i>Total, classes 1 to 15</i> . . .	<i>5,181,166</i>	<i>3,957,934</i>	<i>1,249,739</i>	<i>1,034,440</i>	<i>534,391</i>	<i>326,936</i>	<i>12,284,606</i>
16. Heat, light and power . . .	156,529	95,530	42,521	27,346	20,667	14,129	356,722
Grand total . . .	5,337,695	4,053,464	1,292,260	1,061,786	555,058	341,065	12,641,328

Total value. The following table shows the value of output in each State during the last five years.

FACTORIES: VALUE OF OUTPUT, STATES, 1959-60 TO 1963-64
(\$'000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1959-60 . . .	4,419,618	3,251,366	937,926	771,404	431,166	268,050	10,079,530
1960-61 . . .	4,590,250	3,331,524	983,696	803,256	481,138	275,902	10,465,766
1961-62 . . .	4,566,766	3,374,472	992,734	803,594	486,988	283,548	10,508,102
1962-63 . . .	4,902,044	3,706,624	1,129,892	914,074	517,898	312,544	11,483,076
1963-64 . . .	5,337,695	4,053,464	1,292,260	1,061,786	555,058	341,065	12,641,328

Value of production

By class of industry. The value of production for any industry was defined at the Conference of Statisticians at Sydney in 1925 as 'the value of consumable commodities produced during the year, deducting, so far as possible, the value of goods consumed in process of production'.

In accordance with this definition, it was agreed that a deduction consisting of the costs of raw material, containers, power, fuel, light, lubricants, water, tools replaced, repairs to plant and depreciation should be made from the 'value of output'. Because of the difficulty experienced in securing accurate figures for depreciation, however, it was subsequently decided that no deduction should be made on this account. All the deductions mentioned above, with the exception of depreciation, are included in the items 'value of materials used' and 'value of fuel used' as defined above. The net value of production as given in the following tables is obtained, therefore, by deducting only 'value of materials used' and 'value of fuel used' from the 'value of output'. The value of factory production, therefore, approximates 'net value added' in the manufacturing process.

Only certain selected items of costs are recorded in the annual census of production. It must not, therefore, be inferred that when wages and salaries are deducted from the value of production the whole of the 'surplus' is available for interest and profit, as many miscellaneous expenses such as taxation, insurance, advertising and other overhead charges, as well as depreciation, also have to be taken into account.

The following table shows the value of production in each State for the various classes of industry.

FACTORIES: VALUE OF PRODUCTION, BY CLASS OF INDUSTRY, STATES

1963-64

(\$'000)

Class of industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1. Treatment of non-metalliferous mine and quarry products	57,308	44,780	14,991	16,765	10,228	4,774	148,846
2. Bricks, pottery, glass, etc.	53,989	33,507	7,413	10,650	6,737	1,433	113,729
3. Chemicals, dyes, explosives, paints, oils, grease	217,763	152,986	13,197	26,420	33,130	7,148	450,644
4. Industrial metals, machines, conveyances	1,019,893	654,993	138,806	226,582	84,465	49,251	2,173,990
5. Precious metals, jewellery, plate	7,711	7,574	931	1,690	715	132	18,753
6. Textiles and textile goods (not dress)	80,540	143,463	5,961	8,438	2,459	10,500	251,361
7. Skins and leather (not clothing or footwear)	16,865	13,763	4,725	3,595	1,863	157	40,968
8. Clothing (except knitted)	119,096	127,018	15,968	11,749	5,758	1,826	281,415
9. Food drink and tobacco	236,222	216,321	143,888	46,859	34,730	22,469	700,489
10. Sawmills, joinery, boxes, etc., wood turning and carving	71,507	53,961	29,678	19,079	18,471	13,582	206,278
11. Furniture of wood, bedding, etc.	31,747	22,535	8,776	7,152	4,234	1,467	75,911
12. Paper, stationery, printing, book-binding, etc.	161,333	131,545	26,078	21,709	13,355	25,718	379,738
13. Rubber	30,584	38,118	8,038	6,647	1,681	636	85,704
14. Musical instruments	4,036	607	92	90	76	..	4,901
15. Miscellaneous products	50,932	49,996	2,130	5,424	1,913	275	110,670
<i>Total, classes 1 to 15</i>	<i>2,159,526</i>	<i>1,691,167</i>	<i>420,672</i>	<i>412,849</i>	<i>219,816</i>	<i>139,367</i>	<i>5,043,397</i>
16. Heat, light and power	108,390	59,312	21,201	14,507	10,695	13,204	227,309
Grand total	2,267,916	1,750,479	441,873	427,356	230,511	152,571	5,270,706

Total and average values. The value of production and the amount per person employed and per head of population are shown in the following table.

FACTORIES: VALUE OF PRODUCTION, STATES, 1959-60 TO 1963-64

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Total value (\$'000)—							
1959-60	1,832,892	1,384,336	324,784	325,946	172,748	120,392	4,161,098
1960-61	1,932,758	1,417,546	341,256	340,124	193,260	124,892	4,349,836
1961-62	1,931,614	1,440,642	350,595	347,828	196,083	127,874	4,394,636
1962-63	2,074,886	1,601,742	380,966	379,142	216,422	142,032	4,795,190
1963-64	2,267,916	1,750,479	441,873	427,356	230,511	152,571	5,270,706
Average per person employed (\$)—							
1959-60	3,924	3,626	3,102	3,292	3,480	4,058	3,676
1960-61	4,094	3,652	3,266	3,402	3,814	4,142	3,798
1961-62	4,189	3,880	3,449	3,510	3,842	4,252	3,920
1962-63	4,366	4,026	3,628	3,602	4,050	4,618	4,108
1963-64	4,650	4,237	3,992	3,857	4,138	4,793	4,356
Average per head of population (\$)—							
1959-60	483.28	490.96	224.28	349.14	238.24	346.60	412.42
1960-61	498.86	489.92	226.94	355.36	264.82	356.76	421.98
1961-62	489.22	486.84	229.60	354.89	262.91	358.51	417.86
1962-63	516.72	530.06	245.58	379.54	283.12	392.24	447.56
1963-64	554.98	566.32	280.84	415.27	294.69	416.65	482.69

Value of land, buildings, plant and machinery

The following table shows the value of land and buildings and of plant and machinery used in each State in connection with manufacturing industries.

FACTORIES: VALUE OF LAND, BUILDINGS, PLANT AND MACHINERY(a), 1963-64 (\$'000)

Value of—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Land and buildings	1,453,877	1,020,794	211,520	230,628	118,813	168,403	3,204,035
Plant and machinery	1,504,196	1,040,724	308,307	330,281	155,514	141,651	3,480,673
Total	2,958,073	2,061,518	519,827	560,909	274,327	310,054	6,684,708

(a) At end of year. Includes estimated value of rented premises and plant.

The values recorded in this section are generally the values apportioned in the books of the individual firms after allowance has been made for depreciation, but they include estimates of the capital value of premises and plant rented. Consequently, the totals shown in the table do not represent the actual amount of capital invested in the items specified.

Value of land and buildings, by class of industry

The following table shows, by class of industry for Australia, the approximate value of land and buildings occupied in connection with manufacturing industries.

FACTORIES: VALUE OF LAND AND BUILDINGS(a)
BY CLASS OF INDUSTRY, AUSTRALIA, 1959-60 TO 1963-64
(\$'000)

Class of industry	1959-60	1960-61	1961-62	1962-63	1963-64
1. Treatment of non-metalliferous mine and quarry products	44,650	54,660	62,264	65,682	72,615
2. Bricks, pottery, glass, etc.	39,232	44,498	52,200	63,060	68,470
3. Chemicals, dyes, explosives, paints, oils, grease	160,954	174,104	191,750	201,028	219,212
4. Industrial metals, machines, conveyances	777,320	912,844	1,013,520	1,102,872	1,188,289
5. Precious metals, jewellery, plate	7,910	9,032	9,968	10,788	11,657
6. Textiles and textile goods (not dress)	96,758	106,626	115,582	122,954	130,425
7. Skins and leather (not clothing or footwear)	18,332	18,666	20,000	21,590	23,322
8. Clothing (except knitted)	95,524	107,552	115,928	126,808	135,960
9. Food, drink and tobacco	298,682	321,432	344,714	370,014	392,089
10. Sawmills, joinery, boxes, etc., wood turning and carving	69,806	80,566	82,176	85,632	90,956
11. Furniture of wood, bedding, etc.	32,502	35,768	37,762	41,082	44,142
12. Paper, stationery, printing, bookbinding, etc.	137,994	154,996	170,438	182,792	198,860
13. Rubber	26,878	31,064	33,750	37,408	50,595
14. Musical instruments	1,860	1,844	1,592	1,594	1,550
15. Miscellaneous products	36,690	41,440	52,184	58,214	63,440
<i>Total, classes 1 to 15</i>	<i>1,845,092</i>	<i>2,095,092</i>	<i>2,303,828</i>	<i>2,491,518</i>	<i>2,691,582</i>
16. Heat, light and power	284,064	294,048	505,812	514,974	512,453
Grand total	2,129,156	2,389,140	2,809,640	3,006,492	3,204,035

(a) At end of year. Includes estimated value of rented premises.

The following table gives particulars for each State by class of industry.

FACTORIES: VALUE OF LAND AND BUILDINGS(a)
BY CLASS OF INDUSTRY, STATES, 1963-64
(\$'000)

Class of industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1. Treatment of non-metalliferous mine and quarry products	26,049	28,123	4,628	7,117	5,057	1,641	72,615
2. Bricks, pottery, glass, etc.	34,222	21,952	3,942	4,437	2,887	1,030	68,470
3. Chemicals, dyes, explosives, paints, oils, grease	112,200	75,812	4,704	9,909	13,575	3,012	219,212
4. Industrial metals, machines, conveyances	543,486	393,476	66,074	112,390	43,918	28,945	1,188,289
5. Precious metals, jewellery, plate	4,750	4,349	458	1,443	517	140	11,657
6. Textiles and textile goods (not dress)	41,693	77,675	2,085	4,165	1,292	3,515	130,425
7. Skins and leather (not clothing or footwear)	10,603	9,382	935	1,524	800	78	23,322
8. Clothing (except knitted)	58,528	58,300	7,034	6,534	3,860	1,704	135,960
9. Food, drink and tobacco	123,119	138,268	59,177	33,229	21,713	16,583	392,089
10. Sawmills, joinery, boxes, etc., wood turning and carving	34,752	29,103	9,233	8,479	4,768	4,621	90,956
11. Furniture of wood, bedding, etc.	18,099	14,104	5,287	3,721	1,943	988	44,142
12. Paper, stationery, printing, bookbinding, etc.	88,226	64,062	14,224	13,066	6,298	12,984	198,860
13. Rubber	19,292	20,150	5,107	3,498	1,678	870	50,595
14. Musical instruments	942	331	71	104	102		1,550
15. Miscellaneous products	26,438	32,078	988	2,433	1,251	252	63,440
<i>Total, classes 1 to 15</i>	<i>1,142,399</i>	<i>967,165</i>	<i>183,947</i>	<i>212,049</i>	<i>109,659</i>	<i>76,363</i>	<i>2,691,582</i>
16. Heat, light and power	311,478	53,629	27,573	18,579	9,154	92,040	512,453
Grand total	1,453,877	1,020,794	211,520	230,628	118,813	168,403	3,204,035

(a) At end of year. Includes estimated value of rented premises.

Total value. The following table shows the value of land and buildings in each State.

FACTORIES: VALUE OF LAND AND BUILDINGS(a), STATES, 1959-60 TO 1963-64
(\$'000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1959-60 . . .	881,096	708,922	152,704	155,264	87,146	144,024	2,129,156
1960-61 . . .	1,003,586	803,462	168,316	175,458	91,220	147,098	2,389,140
1961-62 . . .	1,286,966	889,332	179,264	196,594	98,336	159,148	2,809,640
1962-63 . . .	1,379,534	953,736	193,484	212,964	102,856	163,918	3,006,492
1963-64 . . .	1,453,877	1,020,794	211,520	230,628	118,813	168,403	3,204,035

(a) At end of year. Includes estimated value of rented premises.

Value of plant and machinery

By class of industry. The following table shows, by class of industry for Australia, the approximate value of plant and machinery used in factories.

FACTORIES: VALUE OF PLANT AND MACHINERY(a)
BY CLASS OF INDUSTRY, AUSTRALIA, 1959-60 TO 1963-64
(\$'000)

Class of industry	1959-60	1960-61	1961-62	1962-63	1963-64
1. Treatment of non-metalliferous mine and quarry products	99,316	136,852	148,862	153,586	155,387
2. Bricks, pottery, glass, etc.	32,572	40,152	47,888	63,408	70,476
3. Chemicals, dyes, explosives, paints, oils, grease	315,462	325,390	398,422	424,982	459,429
4. Industrial metals, machines, conveyances	719,158	900,236	1,005,970	1,100,596	1,187,576
5. Precious metals, jewellery, plate	3,082	3,144	2,896	3,018	3,454
6. Textiles and textile goods (not dress)	85,550	91,498	96,630	104,032	106,160
7. Skins and leather (not clothing or footwear)	8,432	8,982	9,032	9,214	9,472
8. Clothing (except knitted)	34,488	37,318	38,336	43,006	46,489
9. Food, drink and tobacco	294,524	319,200	337,240	362,542	383,922
10. Sawmills, joinery, boxes, etc., wood turning and carving	61,682	66,528	68,394	68,924	71,548
11. Furniture of wood, bedding, etc.	8,738	9,088	9,546	9,964	11,137
12. Paper, stationery, printing, bookbinding, etc.	149,552	173,976	183,724	199,086	209,705
13. Rubber	24,480	25,980	26,148	28,556	36,532
14. Musical instruments	772	708	698	644	603
15. Miscellaneous products	26,910	31,808	35,532	42,278	46,137
<i>Total, classes 1 to 15</i>	<i>1,864,718</i>	<i>2,170,860</i>	<i>2,409,318</i>	<i>2,613,836</i>	<i>2,798,027</i>
16. Heat, light and power	578,490	614,706	642,762	672,626	682,646
Grand total	2,443,208	2,785,566	3,052,080	3,286,462	3,480,673

(a) At end of year. Includes estimated value of rented plant and machinery.

The following table shows the value of plant and machinery used in factories in each State according to class of industry.

FACTORIES: VALUE OF PLANT AND MACHINERY(a)
BY CLASS OF INDUSTRY, STATES, 1963-64
 (\$'000)

Class of industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1. Treatment of non-metalliferous mine and quarry products	74,798	50,683	8,272	14,346	4,796	2,492	155,387
2. Bricks, pottery, glass, etc. . . .	33,792	23,766	4,416	4,766	3,128	608	70,476
3. Chemicals, dyes, explosives, paints, oils grease	217,537	146,856	5,685	35,572	47,120	6,659	459,429
4. Industrial metals, machines, conveyances	646,085	282,304	46,053	139,662	33,589	39,882	1,187,576
5. Precious metals, jewellery, plate	1,461	1,350	141	352	118	32	3,454
6. Textiles and textile goods (not dress)	32,379	59,224	2,001	4,656	1,248	6,652	106,160
7. Skins and leather (not clothing or footwear)	4,071	3,172	867	982	336	44	9,472
8. Clothing (except knitted)	18,522	20,133	2,848	2,897	1,266	823	46,489
9. Food, drink and tobacco	103,088	123,087	101,674	25,375	16,097	14,600	383,922
10. Sawmills, joinery, boxes, etc., wood turning and carving	24,612	17,063	10,663	8,324	4,914	5,972	71,548
11. Furniture of wood, bedding, etc. . . .	4,420	3,096	1,516	1,320	558	227	11,137
12. Paper, stationery, printing, book-binding, etc. . . .	78,918	62,370	20,074	17,948	4,325	26,070	209,705
13. Rubber	14,432	15,849	1,957	2,037	1,977	280	36,532
14. Musical instruments	431	119	6	41	6	..	603
15. Miscellaneous products	18,386	25,032	547	1,413	699	60	46,137
<i>Total, classes 1 to 15</i>	<i>1,272,932</i>	<i>834,104</i>	<i>206,720</i>	<i>259,692</i>	<i>120,177</i>	<i>104,402</i>	<i>2,798,027</i>
16. Heat, light and power	231,263	206,620	101,587	70,589	35,338	37,249	682,646
Grand total	1,504,195	1,040,724	308,307	330,281	155,514	141,651	3,480,673

(a) At end of year. Includes estimated value of rented plant and machinery.

Total value. The following table shows the value of plant and machinery in each State.

FACTORIES: VALUE OF PLANT AND MACHINERY(a), STATES, 1959-60 TO 1963-64
 (\$'000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1959-60	1,013,276	757,264	240,422	196,480	128,450	107,316	2,443,208
1960-61	1,214,562	833,122	265,138	226,200	128,612	112,632	2,785,566
1961-62	1,341,272	938,278	274,502	253,006	123,432	121,590	3,052,080
1962-63	1,438,382	1,003,320	280,384	293,698	132,636	137,932	3,286,462
1963-64	1,504,195	1,040,724	308,307	330,281	155,514	141,651	3,480,673

(a) At end of year. Includes estimated value of rented plant and machinery.

Depreciation of land and buildings and plant and machinery

The following table shows, by class of industry, the allowance made for the depreciation of land and buildings and plant and machinery used in connection with the manufacturing industries in each State as recorded by factory proprietors at the annual census of factory production.

**FACTORIES: ALLOWANCE FOR DEPRECIATION OF LAND AND BUILDINGS AND
PLANT AND MACHINERY, BY CLASS OF INDUSTRY, STATES, 1963-64**
(S'000)

Class of industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1. Treatment of non-metalliferous mine and quarry products	8,928	4,344	1,362	1,816	620	296	17,366
2. Bricks, pottery, glass, etc.	3,154	3,000	454	531	346	103	7,588
3. Chemicals, dyes, explosives, paints, oils, grease	24,423	20,999	737	2,860	6,588	1,043	56,650
4. Industrial metals, machines, conveyances	70,036	37,003	5,063	18,869	3,243	4,009	138,263
5. Precious metals, jewellery, plate	130	120	14	31	10	2	307
6. Textiles and textile goods (not dress)	4,049	8,350	291	428	129	602	13,849
7. Skins and leather (not clothing or footwear)	423	322	125	136	48	4	1,058
8. Clothing (except knitted)	1,681	1,824	273	196	127	74	4,175
9. Food, drink and tobacco	12,514	13,810	10,251	2,974	2,371	1,690	43,610
10. Sawmills, joinery, boxes, etc. wood turning and carving	2,791	1,695	1,407	798	538	897	8,126
11. Furniture of wood, bedding, etc.	511	324	170	115	72	21	1,213
12. Paper, stationery, printing, bookbinding, etc.	8,466	9,439	2,275	1,626	676	3,320	25,802
13. Rubber	1,755	2,993	375	470	234	60	5,887
14. Musical instruments	82	13	1	2	(a)	..	98
15. Miscellaneous products	2,533	3,565	54	180	83	7	6,422
<i>Total, classes 1 to 15</i>	<i>141,476</i>	<i>107,801</i>	<i>22,852</i>	<i>31,032</i>	<i>15,125</i>	<i>12,128</i>	<i>330,414</i>
16. Heat, light and power	22,765	9,762	6,196	2,931	2,893	1,679	46,226
Grand total	164,241	117,563	29,048	33,963	18,018	13,807	376,640

(a) Less than \$500.

Land and buildings, plant and machinery—values, additions and replacements, depreciation

The following table summarizes the recorded totals for Australia and also includes particulars of additions and replacements.

**FACTORIES: VALUE OF LAND AND BUILDINGS, PLANT AND MACHINERY
AUSTRALIA, 1959-60 TO 1963-64**
(S'000)

Year	Book values at 30 June(a)		Additions and replacements during year(a)		Depreciation allowed during year	
	Land and buildings	Plant and machinery	Land and buildings	Plant and machinery	Land and buildings	Plant and machinery
1959-60	2,129,156	2,443,208	203,942	462,324	26,606	216,972
1960-61	2,389,140	2,785,566	180,036	488,096	33,804	250,538
1961-62	2,809,640	3,052,080	359,728	561,186	36,892	279,860
1962-63	3,006,492	3,286,462	191,470	565,994	38,797	304,152
1963-64	3,204,035	3,480,673	192,419	564,958	39,711	336,929

(a) Includes estimated value of rented premises, plant and machinery.

Principal factory products

The factory production of certain commodities is shown in the monthly and quarterly publications of this Bureau, in the series *Manufacturing Industries*, and in the bulletin *Manufacturing Commodities*, formerly *Secondary Industries, Part II.—Materials Used and Articles Produced in Factories* (see page 91).

The following table shows the total recorded production of some of the principal articles (i.e. of those for which production can be represented in quantitative terms) manufactured in Australia. A more complete list, together with values, where available, is published in the aforementioned bulletin and in the mimeographed statement *Principal Factory Products*.

QUANTITY OF PRINCIPAL ARTICLES PRODUCED IN FACTORIES
AUSTRALIA, 1961-62 TO 1964-65

Article	1961-62	1962-63	1963-64	1964-65 (a) (b)
Abrasive cleansers and/or scourers—				
Household cwt	55,805	57,797	51,593	50,860
Industrial "	5,482	3,772	4,302	4,143
Acid—				
Hydrochloric tons	3 779	4,295	4,304	4,786
Nitric "	17,885	19,836	19,782	24,810
Sulphuric '000 tons	1,136	1,256	1,447	1,613
Aerated and carbonated waters '000 gals	83,224	87,365	93,304	97,373
Air conditioning equipment—				
Room air conditioners (refrigerated) no.	11,151	5,918	4,511	5,134
Room air coolers (evaporative coolers) "	15,231	3,620	1,896	3,015
Package unit air conditioners "	2,313	1,835	1,830	2,302
Asbestos cement building sheets '000 sq. yds	26,795	27,743	29,778	33,048
Bacon and ham (cured weight) '000 lb.	77,743	73,507	74,684	95,561
Bags, leather, fibre, etc.—				
Handbags—				
Leather no.	643,991	534,486	509,569	
Plastic '000	1,752	2,109	2,065	
Other no.	158,133	250,858	278,359	
Hessian and calico bags '000 doz.	2,488	2,846	3,000	
Suitcases, kitbags and trunks '000	1,218	1,420	1,567	
All other(c) "	2,085	2,108	2,037	
Baking powder lb.	761,969	754,159	780,053	
Bath heaters—				
Electric no.	14,828	11,783	14,498	14,079
Gas "	18,006	14,143	11,943	11,396
Solid fuel "	20,987	19,967	17,606	15,132
Bathing suits doz.	191,698	209,753	205,945	240,064
Baths—				
C.I.P.E. no.	78,351	76,034	77,868	85,676
Pressed steel, enamel "	30,893	32,099	48,789	64,293
Batteries, wet cell type—				
Auto (S.L.I.) 6 volts no.	555,334	599,751	579,014	502,136
12 volts "	887,512	1,115,569	1,191,782	1,247,258
Radio, homelighter, fencer no. of 2 Volt cells	185,884	192,146	190,608	162,646
Traction "	36,646	40,623	39,540	42,865
Beer (excluding waste beer) '000 gals	241,636	249,454	262,343	(d) 283,357
Biscuits '000 lb.	179,959	185,245	197,970	208,321
Blankets '000	1,689	1,845	2,176	2,084
Boots and shoes (see Footwear)				
Bran (wheaten) tons (2,000 lb.)	236,272	225,185	252,746	228,098
Brandy '000 proof gals	1,178	1,129	1,220	
Brassieres doz.	571,465	609,575	681,846	674,535
Bread (2 lb. loaf equivalent) '000	759,010	762,673	779,458	
Breakfast food, cereal (ready to eat) cwt	796,565	812,725	833,726	870,024
Bricks, clay '000	992,410	1,058,675	1,237,843	1,344,401
Brooms gross	23,411	21,867	21,584	
Brushes(e) "	95,446	96,791	95,091	
Butter(f) tons	197,256	201,234	202,809	203,465
Candles cwt	8,020	9,159	9,847	
Cardigans, sweaters, etc. "	1,136,229	1,261,126	1,347,503	1,374,585
Casein '000 lb.	30,356	36,236	37,360	39,612
Caustic soda tons	47,539	56,481	64,230	69,198
Cement, portland "	2,782,785	2,942,045	3,320,139	3,741,056
Cheese (green weight) "	55,380	58,539	58,217	(g) 61,389
Chlorine "	27,787	36,803	43,488	47,916
Chutney '000 pints	2,052	1,414	1,319	
Cigarettes and cigars '000 lb.	42,899	45,346	46,040	49,649
Cloth (including mixtures)—				
Cotton(h) '000 sq. yds	45,629	47,093	53,354	56,205
Woolen and worsted(i) "	24,991	28,227	23,714	24,628
Coke—				
Metallurgical '000 tons	2,717	2,759	2,915	3,175
Other tons	762,455	694,575	693,361	
Confectionery—				
Chocolate '000 lb.	77,761	83,815	92,714	95,304
Other "	96,850	97,708	100,482	105,909

(a) Subject to revision. (b) Blank spaces indicate figures not yet available. (c) Excludes canvas waterbags. (d) As reported by Department of Customs and Excise; includes waste. (e) Excludes tooth brushes and industrial metal and bristle brushes. (f) Includes the butter equivalent of butter oil production. 1964-65 figures as reported by Commonwealth Dairy Produce Equalisation Committee Ltd. and State Departments of Agriculture. (g) As reported by the Commonwealth Dairy Produce Equalisation Committee Ltd. and by producers not within the Equalisation Scheme. (h) Excludes towelling and tyre-cord fabric. (i) Excludes blanketing.

QUANTITY OF PRINCIPAL ARTICLES PRODUCED IN FACTORIES
AUSTRALIA, 1961-62 TO 1964-65—continued

Article	1961-62	1962-63	1963-64	1964-65 (a)(b)
Copper, refined(c) tons	63,769	85,652	90,890	56,112
Coppers—				
Electric no.	13,188	10,385	10,412	
Gas "	14,405	10,959	8,255	
Inserts (all types) "	19,008	15,356	19,540	
Cordials and syrups '000 gals	5,415	6,259	6,887	7,346
Corsets and corselets doz.	237,555	274,353	303,538	341,717
Custard powder '000 lb.	5,768	6,493	6,315	
Cycles, assembled no.	55,065	59,168	62,326	67,570
Dentifrices (toothpaste) '000 lb.	8,687	8,443	8,800	
Dynamos—				
Alternators no.	687	1,022	1,011	
Generators no.	3,915	3,396	1,339	
Electricity mill. kWh	26,275	29,279	32,519	35,390
Engines, internal combustion(d) '000	206	271	290	288
Essences, flavouring—				
Domestic gals	131,281	114,239	127,915	
Industrial "	480,951	530,649	585,015	
Face powder lb.	255,189	247,916	282,122	
Fans, electric no.	183,819	146,193	156,844	204,126
Fats, edible (other than margarine) tons	n.a.	n.a.	21,730	23,991
Felt(e) '000 sq. yds	11,373	12,240	13,122	
Fence posts and droppers tons	37,397	53,932	66,794	68,698
Fibrous plaster sheets '000 sq. yds	15,332	15,932	15,922	14,298
Fish, canned (including fish loaf) '000 lb.	12,040	10,327	11,267	11,095
Floorboards—				
Australian timber '000 super. ft.	135,125	139,284	146,632	
Imported timber "	733	776	665	
Floor coverings—				
Soft '000 sq. yds	7,067	8,801	10,297	11,579
Smooth surface "	6,445	7,566	8,192	11,859
Flour—				
Self-raising cwt	1,024,098	998,192	967,077	
Wheaten(f) '000 tons (2,000 lb.)	1,486	1,465	1,672	1,550
Footwear (not rubber)—				
Boots, shoes and sandals '000 pairs	25,215	26,687	28,241	27,898
Slippers "	9,860	10,671	11,388	11,775
Fruit juices, natural '000 gals	6,755	7,710	8,732	
Gas (town) mill. cubic ft.	50,247	51,351	53,209	53,023
Gloves—				
Dress doz. pairs	27,688	27,580	28,058	28,301
Work—Sewn(g) "	292,507	336,875	379,069	406,182
Dipped "	570,779	760,149	1,100,185	1,194,545
Golf clubs doz.	36,173	29,598	29,800	28,275
Handkerchiefs—				
Men's '000 doz.	1,553	1,738	1,717	
Women's "	1,456	1,355	1,539	
Hats and caps (excluding berets)(h) doz.	565,633	553,749	518,032	
Hose, Rubber, Garden '000 lin. ft.	2,152	2,543	2,897	
Other "	10,644	14,858	17,508	
Plastic, garden "	36,296	36,118	37,268	
Hot water systems—				
Storage—electric, gas, solid fuel(i) no.	103,758	119,585	146,042	173,169
Non-storage—electric(j) "	15,184	15,273	15,437	14,616
Ice tons	252,669	238,924	221,182	
Ice cream '000 gals	19,221	20,661	22,403	24,658
Ice cream mix powder '000 lb.	1,360	1,341	973	786
Infants' and invalids' milk-based health beverage(k) '000 lb.	38,137	38,465	44,105	45,505
Ink, printing, News '000 lb.	11,611	12,397	14,673	
Other "	12,206	12,735	14,013	
Iron and steel—				
Pig iron '000 tons	3,380	3,400	3,772	4,033
Steel ingots "	4,076	4,260	4,764	5,121
Blooms and slabs "	3,326	3,672	4,076	4,515
Irons, electric (hand, domestic) no.	305,374	354,636	363,617	428,543
Jams (including conserves, jellies, etc.) '000 lb.	98,313	92,175	90,462	89,811
Jelly crystals "	13,656	14,214	13,935	

(a) Subject to revision. (b) Blank spaces indicate figures not yet available. (c) Primary origin only.
 (d) Petrol and diesel. Excludes motor ca., motor cycle, truck, tractor, aeroplane and marine engines. (e) Includes underfelt. (f) Includes wheatmeal for baking and sharps. (g) Excludes fabric liners for dipped gloves, but includes moulded or heat sealed gloves. (h) Includes hoods and capelnes. (i) Includes heat exchange (coil type) displacement or falling level type and circulating systems. (j) Instantaneous type.
 (k) Includes malted milk and milk sugar (lactose).

**QUANTITY OF PRINCIPAL ARTICLES PRODUCED IN FACTORIES
AUSTRALIA, 1961-62 TO 1964-65—continued**

Article	1961-62	1962-63	1963-64	1964-65 (a)(b)
Lacquer, clear and colours '000 gals	1,310	1,443	1,525	1,525
Lard '000 lb.	5,314	5,165	6,934	
Lawn mowers—				
Petrol, rotary no.	200,712	217,172	199,204	200,520
Other types(c) "	8,962	15,158	16,486	10,796
Lead refined(d) tons	174,497	208,946	217,296	199,030
Leather—				
Dressed, from hides, measurement . . . '000 sq. ft.	62,357	} Collected on different basis		
" weight '000 lb.	122			
" skins '000 sq. ft.	15,920			
Harness, skirt, belting, etc. '000 lb.	1,205			
Sole "	20,137			
Upholstery '000 sq. ft.	736			
Dressed or finished—Chrome tanned (including retanned) '000 sq. ft.		77,887	84,417	
Vegetable tanned, by weight '000 lb.	} Collected on differ- ent basis	20,838	21,010	
Vegetable tanned, by measurement '000 sq. ft.		3,449	5,423	
Tanned or dressed skins with hair or wool retained '000 doz.		100	51	
Lime—Crushed tons	191,501	161,129	180,316	
Hydrated "	85,126	76,401	81,508	
Quick "	96,792	98,545	110,429	
Lipstick lb.	92,404	86,318	84,512	
Lubricating oil '000 gals.	13,316	12,242	14,512	
Malt, barley '000 bus.	10,360	10,536	12,127	11,997
Margarine—				
Table '000 lb.	35,262	35,703	35,431	50,558
Other "	65,066	68,030	73,047	69,058
Mattresses—Box spring no.	26,937	37,825	46,580	63,220
Inner spring "	635,298	644,510	689,114	724,337
Woven wire "	402,651	403,866	454,657	530,008
Other "	266,163	256,462	274,390	282,169
Meat, canned(e) '000 lb.	117,088	95,279	99,901	115,266
Meters—				
Electric (domestic) no.	245,246	235,753	254,884	302,532
Gas "	50,439	48,198	53,551	50,010
Water "	138,883	131,882	127,689	127,316
Milk, condensed, concentrated and evaporated—				
Full cream, sweetened '000 lb.	63,299	75,533	95,744	103,175
unsweetened(f) "	83,860	97,848	83,860	97,848
Skim and/or buttermilk "	13,168	19,203	25,712	22,709
Milk powder—				
Full cream '000 lb.	45,326	39,703	42,169	42,495
Skim "	84,441	94,176	92,130	105,930
Buttermilk and whey "	18,918	21,831	22,139	21,027
Mops, floor gross	17,449	18,024	14,425	
Motor spirit (including benzol) '000 gals	1,212,864	1,262,767	1,358,499	1,481,734
Motors, electric '000	1,698	1,936	2,223	2,563
Motor vehicles—Cars(g) no.	202,676	299,518	322,880	334,683
Utilities "	24,602	27,852	30,003	} 41,463
Vans "	10,137	12,530	13,643	
Mustard prepared for instant use lb.	368,695	353,943	446,628	
Nails tons	22,186	23,447	24,987	26,616
Neckties doz.	516,975	524,622	454,988	
Oatmeal and rolled oats for porridge cwt	312,225	301,976	298,965	319,783
Paint—				
Dry colours, synthetic or chemical—				
Zinc oxide cwt	122,847	152,156	153,439	
Other (whites and colours) "	182,156	197,510	203,725	
Ground, natural earths '000 cwt	993	1,294	1,496	
Ready-mixed, liquid and enamels '000 imp. gals.	13,290	13,846	15,491	16,144
Tinting colours, ground in oil (vegetable or synthetic). gals	53,859	66,306	65,467	
Other than water, in paste form (heavy- bodied whites, etc.) '000 lb.	3,160	3,088	3,191	2,862
Water—				
Emulsion type '000 imp. gals.	2,778	3,077	3,349	3,689
Powder (including kalsomine) '000 lb.	2,540	2,226	2,423	2,165
Paper—				
Newsprint tons	89,758	90,245	92,039	93,142
Other "	213,921	255,751	295,651	342,456
Paperboard "	206,909	240,965	258,374	285,278

(a) Subject to revision. (b) Blank spaces indicate figures not yet available. (c) Petrol cylinder, electric and hand. (d) Includes lead content of lead alloy from primary sources, but excludes lead-silver bullion produced for export. (e) Excludes poultry and baby food. (f) Includes liquid ice-cream mix. (g) Includes station wagons, estate cars and similar vehicles.

**QUANTITY OF PRINCIPAL ARTICLES PRODUCED IN FACTORIES
AUSTRALIA, 1961-62 TO 1964-65—continued**

Article	1961-62	1962-63	1963-64	1964-65 (a)(b)
Peanut butter and paste '000 lb.	7,488	7,727	8,130	
Perambulators, pushers and strollers no.	145,236	140,449	147,338	135,604
Pickles '000 pints	6,038	7,793	7,367	
Plaster of paris tons	228,299	240,863	259,455	276,369
Plywood, $\frac{1}{8}$ inch basis '000 sq. ft.	202,807	195,263	216,282	
Pollard tons (2,000 lb.)	315,381	305,923	349,095	327,716
Preserves—				
Fruit—Canned or bottled '000 lb.	449,814	431,739	471,289	511,074
Pulp and puree cwt	139,778	132,788	79,437	
Vegetables—Canned or bottled '000 lb.	135,328	132,628	144,070	149,755
Quick frozen "	47,232	47,834	56,477	74,859
Pyjamas—				
Men's and boys' (suits only) doz.	361,459	406,946	422,731	434,579
Women's and girls' (incl. nightdresses) "	562,577	635,232	675,940	708,446
Racquet frames (all types) "	12,538	15,034	14,466	15,948
Records (phonograph)—				
Single play (78 and 45 r.p.m.) '000	3,018	3,629	3,885	4,198
Extended play "	755	898	1,121	1,474
Long play "	3,422	3,660	4,078	4,460
Refrigerators, domestic no.	209,415	206,349	203,391	226,857
Resins, plastic and synthetic '000 cwt	1,333	1,703	1,975	2,277
Rice (cleaned)(c) "	1,538	1,693	1,596	
Ropes and cables (excluding wire) cwt	139,789	143,490	147,038	137,007
Rugs '000	161	194	186	201
Sauce '000 pints	34,257	33,170	30,791	
Semolina tons (2,000 lb.)	11,385	10,065	13,213	16,768
Shirts (men's and boys') '000 doz.	1,620	1,920	1,965	2,136
Sink heaters no.	15,195	13,398	12,989	13,991
Sinks, stainless steel "	172,380	173,565	193,211	217,877
Soap and detergents—				
Soap—Personal toilet cwt	400,276	418,706	427,851	464,031
Household "	683,829	699,414	709,322	607,984
Industrial (incl. wool scourings)(d) "	92,224	90,383	91,798	95,555
Extracts and powders—				
Household "	562,196	593,838	524,375	398,032
Industrial "	91,923	94,797	100,339	105,563
Detergents—Personal toilet "	18,467	18,115	23,413	31,286
Household "	311,387	378,774	428,155	468,574
Industrial "	37,707	45,869	54,506	63,858
Extracts and powders—				
Household "	481,807	485,515	555,753	604,207
Industrial "	86,000	97,796	105,451	113,692
Socks and stockings—				
Men's and youths' '000 doz. pairs	1,418	1,643	1,628	1,701
Women's and maids' "	3,039	3,633	3,992	4,432
Children's and infants' "	902	899	937	1,022
Soup—Canned '000 pints	44,649	48,063	55,124	
Dry-mix '000 lb.	6,267	7,622	6,805	
Spades and shovels doz.	36,670	31,929	35,790	
Starch '000 lb.	83,160	92,029	102,132	109,688
Stearine (stearic acid) "	9,886	10,050	9,877	11,538
Steel, structural, fabricated tons	401,201	416,067	452,706	
Stoves, ovens and ranges—				
Domestic cooking—				
Electric(e) no.	119,494	139,169	166,311	181,111
Gas "	66,714	65,575	77,380	84,490
Solid fuel "	28,712	27,137	28,076	23,551
Sugar—Raw (94 net titre) '000 tons	1,383	1,850	1,724	1,956
Refined tons	553,472	563,765	575,575	589,452
Sulphate of ammonia "	103,918	93,475	85,488	109,259
Superphosphate(f) '000 tons	2,591	2,862	3,347	3,703
Talcum powder '000 lb.	6,210	6,571	7,382	
Tallow, unrefined (including dripping)—				
Edible "	151,047	165,782	172,524	
Inedible "	311,292	369,710	357,507	
Television sets no.	289,488	295,692	270,235	310,247
Tiles, roofing—				
Cement '000	53,220	60,482	76,543	86,584
Terracotta "	50,048	51,298	53,785	53,535
Timber—				
From native logs—				
Hardwood '000 super. ft.	1,063,086	1,088,197	1,157,165	} 1,511,483
Softwood "	289,117	322,370	330,862	
From imported logs—				
Hardwood "	21,249	22,255	31,704	
Softwood "	6,685	9,694	33,042	

(a) Subject to revision. (b) Blank spaces indicate figures not yet available. (c) Polished, unpolished or broken. (d) Includes industrial flakes and chips. (e) Includes wall ovens but excludes cooking tops. (f) Source: Department of Primary Industry. Includes ammonium sulphate (in terms of 22 % P₂O₅ content) as from June 1964.

**QUANTITY OF PRINCIPAL ARTICLES PRODUCED IN FACTORIES
AUSTRALIA, 1961-62 TO 1964-65—continued**

Article	1961-62	1962-63	1963-64	1964-65 (a) (b)
Toasters, electric (domestic)	no. 216,923	289,063	305,248	322,839
Tobacco	'000 lb. 13,011	11,553	10,046	9,116
Tomato Juice	gals 2,354,954	2,353,029	1,130,853	1,302,780
Paste and puree	'000 pints 12,357	7,709	13,451	
Tomato pulp	cwt 591,219	449,767	521,614	
Towels	doz. 762,400	729,680	826,004	901,583
Tractors	no. 8,542	10,998	13,879	
Transformers, chokes and ballasts—				
For distribution of power and light, etc.	'000 18,057	18,788	21,592	
„ fluorescent lights and neon signs	„ 1,766	2,477	2,232	
„ radio receivers, record players, etc.	„ 1,085	1,272	1,201	
„ television receivers	„ 1,057	948	1,002	
„ other purposes	no. 209,352	302,403	376,652	
Tubes, pneumatic(c)	'000 2,734	3,144	3,409	(d) 3,605
Twine (all types)	cwt 141,782	157,972	184,356	195,082
Tyres, pneumatic(c)	'000 4,002	5,013	5,097	(d) 5,517
Umbrellas	no. 694,128	736,755	867,378	
Underwear (men's, women's, children's)	'000 doz. 5,518	5,858	6,017	6,213
Vacuum cleaners (domestic)	no. 114,189	127,348	140,708	180,715
Wash basins—				
C.I.P.E.	no. 82,794	77,717	72,744	71,464
Earthenware	„ 81,095	97,404	113,905	143,034
Other (metal)	„ 32,687	37,333	45,289	59,370
Washing machines, household, electric	„ 220,102	215,844	222,070	263,469
Weatherboards—				
Australian timber	'000 super. ft. 25,146	20,123	21,029	
Imported timber	„ 1,378	3,093	2,811	
Wheatmeal(e)	tons (2,000 lb.) 102,285	97,203	129,561	174,037
Wheelbarrows (metal)	no. 85,292	87,642	104,464	
Wine, beverage—				
Fortified	'000 gals 11,077	8,761	10,390	
Unfortified	„ 6,897	6,091	7,623	
Wireless and television cabinets	no. 482,887	440,843	439,769	453,633
Wireless receiving sets (including radiograms)	„ 367,778	500,861	465,520	463,004
Wool, scoured or carbonized	'000 lb. 168,279	171,808	160,906	157,041
Wool tops	„ 46,031	48,147	50,939	46,528
Yarn(f)—				
Cotton	'000 lb. 43,345	46,126	55,387	59,088
Woollen	„ 23,436	26,860	28,380	30,640
Wool worsted	„ 22,519	25,876	23,826	23,798
Zinc oxide (see Paint).				
Zinc, refined(g)	tons 153,742	175,850	186,388	189,396

(a) Subject to revision. (b) Blank spaces indicate figures not yet available. (c) Excludes bicycle and "other". (d) Source: Department of Supply. (e) Excludes wheatmeal for baking, included with flour; includes wheatmeal for porridge and stock food. (f) Includes mixtures predominantly the fibre mentioned. (g) Primary origin only—includes small quantities of zinc dust.

Individual industries

Particulars on pages 95-119 afford a general view of the magnitude of industries in the sixteen groups adopted by the Conference of Statisticians in 1930. While it is not possible, within the limits of this publication, to give a detailed account of each industry, particular industries dealt with hereunder are of special importance because of the employment which they provide for labour or capital, or for other features of special interest. Details for individual States are available from publications issued by the Deputy Commonwealth Statistician in each State and, for selected industries, in the Central Office series *Manufacturing Industries*.

**PORTLAND CEMENT, ASBESTOS CEMENT SHEETS, ETC., AND OTHER CEMENT
GOODS: AUSTRALIA, 1963-64**

	Portland cement	Asbestos cement sheets and mouldings	Other cement goods	Total
Number of factories	16	16	637	669
Number of persons employed	3,225	2,994	8,011	14,230
Salaries and wages paid \$'000	8,572	7,832	20,646	37,050
Value of power, fuel, etc., used \$'000	11,073	1,246	1,369	13,689
Value of materials used \$'000	17,240	13,434	72,362	103,035
Value of production \$'000	29,195	16,517	45,858	91,570
Total value of output \$'000	57,508	31,197	119,589	208,294
Value of land and buildings \$'000	11,079	8,636	17,750	37,465
Value of plant and machinery \$'000	48,687	8,739	19,241	76,667
Horse-power of engines ordinarily in use . . h.p.	107,371	24,960	38,432	170,763

**PORTLAND CEMENT, ASBESTOS CEMENT SHEETS, ETC., AND OTHER CEMENT
GOODS: AUSTRALIA, 1959-60 TO 1963-64**

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	523	577	600	639	669
Number of persons employed	12,054	12,998	12,965	13,577	14,230
Salaries and wages paid \$'000	26,862	30,245	30,901	33,137	37,050
Value of power, fuel, etc., used \$'000	11,232	11,934	12,105	12,862	13,689
Value of materials used \$'000	66,788	80,653	80,987	89,225	103,035
Value of production \$'000	61,570	69,812	71,060	79,223	91,570
Total value of output \$'000	139,590	162,399	164,152	181,310	208,294
Value of land and buildings \$'000	21,228	27,098	31,544	33,692	37,465
Value of plant and machinery \$'000	48,547	63,368	70,246	74,159	76,667
Horse-power of engines ordinarily in use . . h.p.	132,710	145,903	156,025	161,839	170,763

BRICKS, TILES, POTTERY AND EARTHENWARE: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	437	434	427	419	412
Number of persons employed	14,980	15,012	14,305	14,496	15,132
Salaries and wages paid \$'000	31,832	33,326	31,999	33,076	36,416
Value of power, fuel, etc., used \$'000	10,624	11,017	10,730	11,625	13,240
Value of materials used \$'000	15,712	16,990	16,849	17,797	21,931
Value of production \$'000	52,768	54,489	52,166	54,977	65,622
Total value of output \$'000	79,104	82,496	79,745	84,399	100,792
Value of land and buildings \$'000	22,011	25,012	26,301	31,474	35,675
Value of plant and machinery \$'000	23,377	28,752	33,549	41,964	49,165
Horse-power of engines ordinarily in use . . h.p.	97,471	101,389	108,491	118,673	127,124

GLASS AND GLASS BOTTLES: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	229	242	248	255	263
Number of persons employed	9,189	9,444	9,651	10,510	10,382
Salaries and wages paid \$'000	18,722	19,984	21,375	23,171	24,230
Value of power, fuel, etc., used \$'000	5,797	5,886	5,394	5,575	6,485
Value of materials used \$'000	33,409	32,526	32,536	35,922	37,259
Value of production \$'000	35,784	38,477	40,423	44,479	47,454
Total value of output \$'000	74,990	76,889	78,353	85,976	91,197
Value of land and buildings \$'000	17,028	19,253	25,652	31,354	32,567
Value of plant and machinery \$'000	9,129	11,329	14,273	21,388	21,256
Horse-power of engines ordinarily in use . . h.p.	33,565	32,058	35,969	40,627	41,527

**INDUSTRIAL AND HEAVY CHEMICALS AND ACIDS (INCLUDING EXPLOSIVES)
AUSTRALIA, 1959-60 TO 1963-64**

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	287	297	308	320	325
Number of persons employed	14,423	13,945	13,746	14,165	15,075
Salaries and wages paid \$'000	34,292	34,947	35,448	37,567	42,159
Value of power, fuel, etc., used \$'000	9,748	9,304	12,029	13,304	15,626
Value of materials used \$'000	92,426	87,622	101,172	117,449	132,303
Value of production \$'000	86,993	82,130	93,255	111,600	126,769
Total value of output \$'000	189,167	179,056	206,456	242,353	274,698
Value of land and buildings \$'000	49,315	57,018	68,118	68,673	75,208
Value of plant and machinery \$'000	82,653	89,037	141,152	136,126	151,235
Horse-power of engines ordinarily in use . h.p.	117,311	124,629	165,055	174,380	205,235

In order to avoid the publication of confidential information, particulars relating to industrial and heavy chemicals include details for the explosives industry.

**PHARMACEUTICAL AND TOILET PREPARATIONS: AUSTRALIA
1959-60 TO 1963-64**

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	216	212	211	209	213
Number of persons employed	7,791	7,805	7,910	8,058	8,173
Salaries and wages paid \$'000	14,149	14,896	15,728	16,940	16,904
Value of power, fuel, etc., used \$'000	1,619	1,683	1,595	1,850	1,070
Value of materials used \$'000	46,622	47,259	51,171	55,176	56,454
Value of production \$'000	57,971	64,311	66,258	63,996	73,419
Total value of output \$'000	106,212	113,253	119,024	121,022	130,943
Value of land and buildings \$'000	23,056	26,862	29,088	34,175	37,474
Value of plant and machinery \$'000	10,694	12,005	11,465	12,639	13,440
Horse-power of engines ordinarily in use . h.p.	18,084	19,237	20,322	22,772	21,808

The bulk of the output of the above industry comes from New South Wales and Victoria.

WHITE LEAD, PAINTS AND VARNISH: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	181	182	188	184	184
Number of persons employed	5,475	5,208	5,096	5,144	5,356
Salaries and wages paid \$'000	11,420	11,492	11,338	11,659	12,845
Value of power, fuel, etc., used \$'000	832	787	808	873	876
Value of materials used \$'000	53,785	49,847	53,525	57,463	62,494
Value of production \$'000	30,892	30,813	30,934	34,635	36,674
Total value of output \$'000	85,509	81,447	85,267	92,971	100,044
Value of land and buildings \$'000	13,884	15,472	15,491	16,800	17,888
Value of plant and machinery \$'000	8,437	8,354	10,880	10,785	10,438
Horse-power of engines ordinarily in use . h.p.	25,879	27,952	28,780	29,162	32,695

MINERAL OILS, EXTRACTION AND REFINING: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	70	76	77	79	82
Number of persons employed	4,972	5,020	5,028	5,044	5,159
Salaries and wages paid \$'000	13,028	14,125	14,713	15,490	17,066
Value of power, fuel, etc., used \$'000	15,696	15,073	15,979	17,590	20,906
Value of materials used \$'000	266,834	273,007	272,714	287,008	297,591
Value of production \$'000	91,225	88,810	72,677	95,572	97,628
Total value of output \$'000	373,755	376,890	361,370	400,170	416,125
Value of land and buildings \$'000	36,523	36,985	39,034	40,244	42,606
Value of plant and machinery \$'000	169,909	173,509	190,949	218,187	232,195
Horse-power of engines ordinarily in use . h.p.	108,231	132,640	145,383	183,935	203,325

Victoria, New South Wales, and Western Australia produce most of the refined mineral oil and by-products.

SOAP AND CANDLES: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	120	119	117	117	122
Number of persons employed	3,210	3,234	3,290	3,340	3,232
Salaries and wages paid \$'000	6,441	7,077	7,135	7,542	7,679
Value of power, fuel, etc., used \$'000	767	862	841	837	832
Value of materials used \$'000	31,670	32,558	32,276	32,876	34,956
Value of production \$'000	28,260	30,419	30,005	32,754	34,610
Total value of output \$'000	60,697	63,839	63,122	66,467	70,398
Value of land and buildings \$'000	5,304	5,930	5,999	5,964	6,546
Value of plant and machinery \$'000	6,108	6,440	6,881	6,437	6,824
Horse-power of engines ordinarily in use . . h.p.	13,689	14,452	14,495	16,256	16,812

New South Wales and Victoria are the major centres of production in the above industry.

CHEMICAL FERTILIZERS: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	49	44	47	48	48
Number of persons employed	4,763	4,567	4,525	4,432	4,476
Salaries and wages paid \$'000	10,737	10,951	10,938	11,016	11,842
Value of power, fuel, etc., used \$'000	1,988	2,003	1,939	1,840	2,022
Value of materials used \$'000	52,695	53,860	55,436	59,360	65,699
Value of production \$'000	23,041	24,650	24,667	24,917	26,059
Total value of output \$'000	77,724	80,513	82,042	86,117	93,780
Value of land and buildings \$'000	15,015	12,144	12,561	12,712	14,412
Value of plant and machinery \$'000	20,514	17,302	17,468	18,761	20,739
Horse-power of engines ordinarily in use . . h.p.	58,519	53,194	55,089	59,188	68,689

SMELTING, CONVERTING, REFINING AND ROLLING OF IRON AND STEEL
AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	35	34	34	33	30
Number of persons employed	31,825	33,804	34,504	35,605	37,094
Salaries and wages paid \$'000	77,585	87,441	88,474	95,090	102,042
Value of power, fuel, etc., used \$'000	60,404	67,857	67,905	73,547	78,955
Value of materials used \$'000	325,354	348,553	327,557	368,873	390,414
Value of production \$'000	172,513	201,236	195,306	216,504	231,902
Total value of output \$'000	558,271	617,646	590,768	658,924	701,271
Value of land and buildings \$'000	28,835	63,320	73,943	78,759	83,708
Value of plant and machinery \$'000	190,219	295,352	360,857	389,806	410,432
Horse-power of engines ordinarily in use . . h.p.	690,291	757,451	778,470	872,050	943,974

The greater part of the output of the above industry comes from New South Wales, with Western Australia, Victoria, and South Australia producing nearly all the remainder.

FOUNDRIES—FERROUS: AUSTRALIA, 1959-60 TO 1963-64

	1959-60(a)	1960-61(a)	1961-62(a)	1962-63(a)	1963-64
Number of factories	312	245	239	231	230
Number of persons employed	7,853	7,797	7,183	7,711	8,152
Salaries and wages paid \$'000	17,008	17,552	16,178	17,940	19,942
Value of power, fuel, etc., used \$'000	2,243	2,229	2,033	2,320	2,482
Value of materials used \$'000	15,808	17,308	14,796	17,955	20,069
Value of production \$'000	24,651	25,512	22,483	24,972	29,478
Total value of output \$'000	42,702	45,049	39,312	45,247	52,029
Value of land and buildings \$'000	9,732	10,256	10,079	10,949	12,652
Value of plant and machinery \$'000	7,581	7,454	7,157	7,460	8,574
Horse-power of engines ordinarily in use . . h.p.	32,455	31,471	31,506	32,752	34,581

(a) Excludes Tasmania. See Other engineering, page 128.

Tasmanian foundry output is relatively small and details prior to 1963-64 are included in Other engineering.

**PLANT, EQUIPMENT AND MACHINERY (INCLUDING MACHINE TOOLS)
AUSTRALIA, 1959-60 TO 1963-64**

	1959-60(a)	1960-61(a)	1961-62(a)	1962-63(a)	1963-64
Number of factories	2,518	2,587	2,744	2,857	3,027
Number of persons employed	76,096	77,733	77,464	80,758	87,277
Salaries and wages paid \$'000	163,770	173,338	173,588	186,292	212,937
Value of power, fuel, etc., used . . . \$'000	7,148	7,578	7,518	8,230	9,102
Value of materials used \$'000	288,809	304,658	296,927	334,716	389,996
Value of production \$'000	276,804	287,851	285,483	311,341	357,982
Total value of output \$'000	572,761	600,087	589,928	654,287	757,080
Value of land and buildings . . . \$'000	112,231	132,674	148,015	162,815	178,430
Value of plant and machinery . . . \$'000	78,814	86,244	92,355	98,263	105,786
Horse-power of engines ordinarily in use . h.p.	267,497	278,138	293,577	303,606	321,550

(a) Includes agricultural machines and implements, Tasmania.

OTHER ENGINEERING(a): AUSTRALIA, 1959-60 TO 1963-64

	1959-60(b)	1960-61(b)	1961-62(b)	1962-63(b)	1963-64
Number of factories	2,310	2,439	2,457	2,472	2,449
Number of persons employed	25,780	27,997	27,897	28,997	30,044
Salaries and wages paid \$'000	51,715	57,589	59,121	63,465	69,094
Value of power, fuel, etc., used . . . \$'000	2,036	2,097	2,221	2,498	2,667
Value of materials used \$'000	62,220	70,282	71,915	82,198	91,145
Value of production \$'000	84,527	94,738	94,385	104,438	112,492
Total value of output \$'000	148,783	167,117	168,521	189,134	206,304
Value of land and buildings . . . \$'000	38,467	48,030	52,847	56,375	58,584
Value of plant and machinery . . . \$'000	27,565	32,882	35,180	36,600	40,194
Horse-power of engines ordinarily in use . h.p.	89,374	93,019	101,245	107,735	114,317

(a) Jobbing and general engineering works, n.e.i.

(b) Includes Foundries—ferrous, Tasmania.

**EXTRACTING AND REFINING OF NON-FERROUS METALS; ALLOYS
AUSTRALIA, 1959-60 TO 1963-64**

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	71	69	62	64	68
Number of persons employed	7,438	7,545	7,974	8,277	8,960
Salaries and wages paid \$'000	19,070	19,684	21,284	22,905	25,996
Value of power, fuel, etc., used . . . \$'000	9,666	9,405	10,563	13,331	17,839
Value of materials used \$'000	128,751	149,346	143,383	194,286	235,482
Value of production \$'000	41,004	43,969	43,427	52,090	62,349
Total value of output \$'000	179,421	202,720	197,373	259,707	315,670
Value of land and buildings . . . \$'000	20,210	21,449	23,913	28,051	37,881
Value of plant and machinery . . . \$'000	42,990	47,836	63,899	79,506	100,851
Horse-power of engines ordinarily in use . h.p.	86,776	90,216	94,081	93,482	132,003

The above table shows particulars of establishments engaged in metal extraction and ore reduction including secondary recovery of metals, but excluding blast furnaces engaged in production of pig iron from iron ore. Ore dressing and elementary smelting of metallic minerals (e.g. in the case of gold), when these are carried out in an associated plant at or near the mine, are included in the mineral industry (see the chapter Mineral Industry).

**ELECTRICAL MACHINERY, CABLES AND APPARATUS
AUSTRALIA, 1959-60 TO 1963-64**

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	1,360	1,339	1,349	1,404	1,438
Number of persons employed	53,089	54,072	52,918	55,692	59,416
Salaries and wages paid \$'000	108,022	114,358	114,039	123,113	135,806
Value of power, fuel, etc., used . . . \$'000	5,70	5,642	5,671	6,153	6,841
Value of materials used \$'000	217,424	221,361	225,474	232,141	263,668
Value of production \$'000	180,398	187,792	186,033	201,809	229,536
Total value of output \$'000	403,192	414,795	417,178	440,103	500,045
Value of land and buildings . . . \$'000	77,358	85,550	92,016	103,325	110,908
Value of plant and machinery . . . \$'000	55,205	53,659	55,455	57,486	62,232
Horse-power of engines ordinarily in use . h.p.	118,299	122,609	128,326	134,043	142,213

New South Wales factories account for almost two-thirds of the output of this industry.

TRAMCARS AND RAILWAY ROLLING STOCK(a)
AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	129	126	122	122	119
Number of persons employed	36,746	35,323	35,466	34,653	33,689
Salaries and wages paid \$'000	68,416	69,589	71,990	70,663	73,267
Value of power, fuel, etc., used \$'000	2,224	2,194	2,170	2,144	2,162
Value of materials used \$'000	38,827	38,780	39,249	39,370	39,622
Value of production \$'000	82,947	85,779	87,369	85,495	92,435
Total value of output \$'000	123,998	126,753	128,788	127,009	134,219
Value of land and buildings \$'000	25,522	27,363	29,307	29,357	29,372
Value of plant and machinery \$'000	34,349	35,315	35,398	37,166	38,456
Horse-power of engines ordinarily in use . h.p.	116,443	116,063	115,416	116,027	114,456

(a) Government and local authority only.

The railway and tramway workshops, which form an important part of Class 4, are owned chiefly by State governments and local authorities. *Workshops (fifteen in 1963-64) controlled by non-public bodies are not included in the figures above.*

MOTOR VEHICLES—CONSTRUCTION, ASSEMBLY, REPAIRS, ETC.
AUSTRALIA, 1963-64

	Construction and assembly	Repairs	Motor bodies (a)	Motor accessories	Total
Number of factories	43	11,224	2,291		13,866
Number of persons employed	24,311	68,141	33,812	17,393	143,657
Salaries and wages paid \$'000	64,647	124,175	79,546	40,836	309,204
Value of power, fuel, etc., used \$'000	5,040	4,016	3,467	2,664	15,187
Value of materials used \$'000	151,160	137,695	211,032	68,811	568,697
Value of production \$'000	109,608	199,628	116,498	68,678	494,412
Total value of output \$'000	265,808	341,339	330,997	140,153	1,078,296
Value of land and buildings \$'000	65,969	184,508	71,126	31,007	352,610
Value of plant and machinery \$'000	47,981	30,981	60,717	32,577	172,256
Horse-power of engines ordinarily in use . h.p.	90,106	80,322	91,412	64,085	325,925

(a) Includes motor body repairing, panel beating, duco spraying, etc.

The industries catering for the motor trade are included in Class 4, Industrial metals, machines and conveyances. In the table above a summary is given of the principal statistics for 1963-64 for each branch of industry associated with the motor trade of Australia.

In the next table similar details are shown for Australia for these industries combined, for the years 1959-60 to 1963-64. Victoria, New South Wales, and South Australia account for the bulk of the output of these industries. Most of the output of the other States is from repair work.

MOTOR VEHICLES—CONSTRUCTION, ASSEMBLY, REPAIRS, ETC.
AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	12,089	12,757	13,135	13,623	13,866
Number of persons employed	120,561	127,274	121,409	135,579	143,657
Salaries and wages paid \$'000	228,372	248,771	240,583	281,691	309,204
Value of power, fuel, etc., used \$'000	10,246	11,787	11,756	13,783	15,187
Value of materials used \$'000	372,659	403,554	375,093	491,364	568,697
Value of production \$'000	366,732	396,000	391,220	448,106	494,412
Total value of output \$'000	749,637	811,341	778,669	953,273	1,078,296
Value of land and buildings \$'000	228,974	257,969	290,792	321,872	352,610
Value of plant and machinery \$'000	105,684	132,055	139,287	158,471	172,256
Horse-power of engines ordinarily in use . h.p.	234,930	266,266	276,293	310,518	325,925

**SHIP AND BOAT BUILDING AND REPAIRING, MARINE ENGINEERING
AUSTRALIA, 1959-60 TO 1963-64**

—	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	297	318	318	335	346
Number of persons employed	13,786	14,155	14,293	14,218	14,253
Salaries and wages paid \$'000	29,344	32,227	32,928	33,366	35,043
Value of power, fuel, etc., used \$'000	754	802	862	873	901
Value of materials used \$'000	19,193	21,960	23,333	28,106	31,645
Value of production \$'000	36,283	39,419	39,930	40,396	40,272
Total value of output \$'000	56,230	62,181	64,125	69,375	72,817
Value of land and buildings \$'000	11,867	12,939	12,496	13,308	13,865
Value of plant and machinery \$'000	10,174	10,594	10,681	11,258	11,745
Horse-power of engines ordinarily in use . h.p.	75,827	75,300	75,568	77,691	81,291

The above table includes government factories as well as those owned privately and by municipal authorities. About half the output of this industry comes from New South Wales shipyards, with Victoria and South Australia accounting for the greater part of the balance.

**AGRICULTURAL MACHINES AND IMPLEMENTS
AUSTRALIA, 1959-60 TO 1963-64**

—	1959-60(a)	1960-61(a)	1961-62(a)	1962-63(a)	1963-64
Number of factories	404	450	497	531	556
Number of persons employed	11,359	11,307	11,317	11,785	13,818
Salaries and wages paid \$'000	22,632	22,872	22,901	25,610	33,117
Value of power, fuel, etc., used \$'000	1,444	1,475	1,535	1,633	1,940
Value of materials used \$'000	35,215	34,646	36,487	38,912	51,440
Value of production \$'000	33,694	33,741	36,326	39,632	49,702
Total value of output \$'000	70,353	69,862	74,348	80,177	103,082
Value of land and buildings \$'000	13,713	16,437	19,173	20,132	23,064
Value of plant and machinery \$'000	9,451	10,490	10,883	11,441	13,245
Horse-power of engines ordinarily in use . h.p.	42,922	39,648	41,339	43,226	46,606

(a) Excludes Tasmania. In Plant, Equipment and Machinery (including Machine Tools), page 128.

Victorian factories produce more than half the output of the above industry.

**NON-FERROUS METALS—ROLLING AND EXTRUSION
AUSTRALIA, 1959-60 TO 1963-64**

—	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	21	25	30	30	30
Number of persons employed	5,811	6,304	6,566	6,751	6,983
Salaries and wages paid \$'000	14,832	15,683	16,935	17,850	20,293
Value of power, fuel, etc., used \$'000	2,519	2,577	3,131	3,162	3,689
Value of materials used \$'000	80,853	73,288	80,243	86,982	104,550
Value of production \$'000	30,075	28,315	30,868	35,734	41,399
Total value of output \$'000	113,447	104,180	114,242	125,878	149,638
Value of land and buildings \$'000	11,314	17,072	19,545	20,022	21,531
Value of plant and machinery \$'000	17,202	33,177	34,622	39,739	45,932
Horse-power of engines ordinarily in use . h.p.	59,203	73,869	80,662	90,942	114,313

**NON-FERROUS METALS—FOUNDING, CASTING, ETC.
AUSTRALIA, 1959-60 TO 1963-64**

—	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	480	490	477	462	461
Number of persons employed	10,602	10,510	9,833	10,467	11,180
Salaries and wages paid \$'000	21,770	22,073	20,789	22,613	25,389
Value of power, fuel, etc., used \$'000	1,813	1,817	1,794	1,964	2,100
Value of materials used \$'000	41,274	40,297	39,872	46,702	53,556
Value of production \$'000	36,831	36,917	36,733	40,913	49,276
Total value of output \$'000	79,918	79,031	78,399	89,579	104,932
Value of land and buildings \$'000	13,925	16,392	18,677	19,654	21,150
Value of plant and machinery \$'000	11,015	13,078	13,439	14,617	15,163
Horse-power of engines ordinarily in use . h.p.	31,150	34,082	34,285	36,561	38,729

**SHEET METAL WORKING, PRESSING AND STAMPING
AUSTRALIA, 1959-60 TO 1963-64**

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	1,076	1,111	1,142	1,156	1,181
Number of persons employed	26,843	27,474	26,545	27,924	29,551
Salaries and wages paid \$'000	53,702	57,164	55,667	59,854	66,877
Value of power, fuel, etc., used \$'000	3,257	3,098	3,216	3,543	3,719
Value of materials used \$'000	121,602	130,451	132,210	139,767	156,346
Value of production \$'000	96,866	100,206	101,073	113,707	123,360
Total value of output \$'000	221,725	233,755	236,499	257,017	283,425
Value of land and buildings \$'000	41,729	49,801	55,770	59,812	65,805
Value of plant and machinery \$'000	30,082	34,738	36,108	40,461	44,779
Horse-power of engines ordinarily in use . . h.p.	77,233	80,020	79,963	84,487	89,116

PIPES, TUBES AND FITTINGS—FERROUS: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	49	55	62	58	58
Number of persons employed	8,332	8,547	8,272	8,784	9,138
Salaries and wages paid \$'000	19,311	20,679	20,243	22,394	24,495
Value of power, fuel, etc., used \$'000	2,714	2,701	2,577	3,212	3,425
Value of materials used \$'000	52,909	51,060	51,756	54,775	60,047
Value of production \$'000	39,487	40,042	37,782	38,751	45,258
Total value of output \$'000	94,710	93,803	92,115	96,738	108,730
Value of land and buildings \$'000	12,602	13,636	14,689	17,593	17,921
Value of plant and machinery \$'000	13,910	14,366	15,483	19,579	22,330
Horse-power of engines ordinarily in use . . h.p.	50,038	52,300	47,547	56,219	60,447

New South Wales, South Australia, and Victoria produce most of the output of the above industry.

**WIRE AND WIRE WORKING (INCLUDING NAILS)
AUSTRALIA, 1959-60 TO 1963-64**

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	286	282	283	289	298
Number of persons employed	9,974	10,195	9,804	10,377	10,433
Salaries and wages paid \$'000	20,836	22,596	21,229	23,820	24,959
Value of power, fuel, etc., used \$'000	1,810	1,845	1,762	1,889	2,033
Value of materials used \$'000	71,750	74,602	69,936	80,581	92,097
Value of production \$'000	41,972	42,100	38,722	43,909	46,710
Total value of output \$'000	115,532	118,547	110,420	126,379	140,840
Value of land and buildings \$'000	16,244	17,916	19,570	21,200	21,743
Value of plant and machinery \$'000	12,255	13,176	13,988	16,168	15,770
Horse-power of engines ordinarily in use . . h.p.	37,162	37,233	39,010	43,818	42,624

New South Wales and Victoria predominate in this industry.

WIRELESS AND AMPLIFYING APPARATUS: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	289	301	327	330	355
Number of persons employed	19,559	17,273	14,707	16,586	16,907
Salaries and wages paid \$'000	35,288	34,184	29,204	33,240	35,772
Value of power, fuel, etc., used \$'000	1,241	1,296	1,171	1,315	1,321
Value of materials used \$'000	100,259	80,517	71,990	78,940	78,847
Value of production \$'000	60,607	51,009	47,173	54,437	56,834
Total value of output \$'000	162,107	132,822	120,334	134,692	137,002
Value of land and buildings \$'000	17,882	20,958	23,129	24,104	23,883
Value of plant and machinery \$'000	11,488	12,936	12,893	13,266	12,888
Horse-power of engines ordinarily in use . . h.p.	14,302	14,850	15,353	15,216	14,720

The above industry is confined mainly to New South Wales, Victoria and South Australia.

COTTON SPINNING AND WEAVING: AUSTRALIA, 1959-60 TO 1963-64

—	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	92	88	88	88	85
Number of persons employed	9,780	9,121	8,980	9,313	9,869
Salaries and wages paid \$'000	17,706	16,244	16,490	17,262	19,187
Value of power, fuel, etc., used \$'000	1,995	1,915	2,066	2,267	2,549
Value of materials used \$'000	41,262	36,672	38,323	41,635	46,619
Value of production \$'000	32,447	30,338	29,654	33,521	38,194
Total value of output \$'000	75,704	68,925	70,043	77,423	87,362
Value of land and buildings \$'000	19,413	20,783	25,818	28,860	32,264
Value of plant and machinery \$'000	18,829	20,211	21,617	24,382	24,402
Horse-power of engines ordinarily in use . h.p.	37,240	36,193	40,592	41,581	43,752

The growing of cotton is treated in some detail in the chapter Rural Industry. The production of raw cotton is supplemented by imports from overseas, chiefly (in 1964-65) from the United States of America, Mexico, Brazil, Pakistan, Uganda, Peru, and Colombia.

WOOL CARDING, SPINNING AND WEAVING:
AUSTRALIA, 1959-60 TO 1963-64

—	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	134	135	134	134	129
Number of persons employed	22,433	21,400	20,102	21,131	20,061
Salaries and wages paid \$'000	36,105	34,743	34,162	36,461	35,476
Value of power, fuel, etc., used \$'000	3,126	2,968	2,913	3,014	2,874
Value of materials used \$'000	94,880	81,258	86,245	97,027	107,378
Value of production \$'000	58,262	56,237	53,186	58,652	55,799
Total value of output \$'000	156,268	140,463	142,344	158,693	166,051
Value of land and buildings \$'000	21,251	21,807	21,823	23,150	23,326
Value of plant and machinery \$'000	25,199	25,103	26,470	27,440	26,550
Horse-power of engines ordinarily in use . h.p.	70,811	69,488	70,610	71,354	71,318

Victoria produces more than half the output of this industry.

HOSIERY AND OTHER KNITTED GOODS: AUSTRALIA, 1959-60 TO 1963-64

—	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	701	687	658	625	607
Number of persons employed	24,414	24,741	23,403	24,627	25,471
Salaries and wages paid \$'000	37,582	38,202	36,990	40,646	42,834
Value of power, fuel, etc., used \$'000	1,596	1,621	1,589	1,614	1,691
Value of materials used \$'000	82,957	84,456	83,545	92,517	98,423
Value of production \$'000	69,259	72,170	71,896	76,180	83,674
Total value of output \$'000	153,812	158,247	157,030	170,311	183,788
Value of land and buildings \$'000	25,924	29,213	30,458	31,499	32,685
Value of plant and machinery \$'000	18,342	19,933	21,222	22,753	24,370
Horse-power of engines ordinarily in use . h.p.	22,019	22,738	23,250	23,106	24,344

Victorian mills produce about three-quarters of the Australian output of knitted goods, most of the balance being produced in New South Wales.

RAYON, NYLON AND OTHER SYNTHETIC FIBRES
AUSTRALIA, 1959-60 TO 1963-64

—	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	33	40	44	45	43
Number of persons employed	3,072	3,878	3,947	4,329	4,527
Salaries and wages paid \$'000	5,836	7,752	7,866	9,079	9,825
Value of power, fuel, etc., used \$'000	802	939	1,033	1,143	1,236
Value of materials used \$'000	13,637	17,316	19,767	25,733	27,483
Value of production \$'000	10,010	12,343	13,646	16,089	18,191
Total value of output \$'000	24,449	30,598	34,446	42,965	46,910
Value of land and buildings \$'000	4,494	6,433	7,350	8,596	8,711
Value of plant and machinery \$'000	5,710	7,643	7,956	9,141	8,688
Horse-power of engines ordinarily in use . h.p.	10,669	12,161	13,632	14,202	14,279

Victoria produces nearly two-thirds of the total Australian output of synthetic fibre textiles, most of the balance being produced in New South Wales.

ROPE AND CORDAGE: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	28	27	26	26	25
Number of persons employed	2,387	2,335	2,146	2,307	2,404
Salaries and wages paid \$'000	4,570	4,545	4,379	4,861	5,118
Value of power, fuel, etc., used \$'000	316	342	346	369	396
Value of materials used \$'000	8,333	10,242	8,480	9,590	11,022
Value of production \$'000	8,815	8,514	8,244	9,504	8,465
Total value of output \$'000	17,464	19,098	17,070	19,463	19,883
Value of land and buildings \$'000	5,251	5,259	5,403	5,508	5,492
Value of plant and machinery \$'000	3,317	3,389	3,437	3,568	3,600
Horse-power of engines ordinarily in use . . h.p.	14,057	15,015	15,153	15,240	15,407

Most of the production takes place in New South Wales and Victoria.

WOOLSCOURING AND FELLMONGERY: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	59	58	58	56	54
Number of persons employed	3,014	2,740	2,803	2,842	2,570
Salaries and wages paid \$'000	6,701	6,176	6,307	6,594	6,152
Value of power, fuel, etc., used \$'000	1,282	1,110	1,170	1,238	1,212
Value of materials used \$'000	31,087	24,919	28,062	31,928	35,621
Value of production \$'000	9,919	8,842	8,866	9,271	8,546
Total value of output \$'000	42,288	34,871	38,098	42,437	45,379
Value of land and buildings \$'000	4,392	4,136	4,801	5,687	6,082
Value of plant and machinery \$'000	2,695	2,723	2,722	3,069	2,993
Horse-power of engines ordinarily in use . . h.p.	17,479	17,926	16,779	17,544	18,089

Most of the production from the above industry comes from New South Wales and Victoria

**TANNING, CURRYING AND LEATHER DRESSING
AUSTRALIA, 1959-60 TO 1963-64**

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	118	112	108	102	102
Number of persons employed	4,435	4,245	4,159	4,215	4,298
Salaries and wages paid \$'000	9,223	9,150	9,224	9,473	9,910
Value of power, fuel, etc., used \$'000	968	969	976	1,001	1,020
Value of materials used \$'000	31,531	28,842	28,560	25,156	23,881
Value of production \$'000	13,935	13,496	14,785	16,229	17,165
Total value of output \$'000	46,434	43,307	44,321	42,386	42,066
Value of land and buildings \$'000	6,798	6,836	7,074	7,329	8,205
Value of plant and machinery \$'000	4,303	4,460	4,483	4,531	4,761
Horse-power of engines ordinarily in use . . h.p.	33,516	31,516	31,278	27,598	29,598

New South Wales, Victorian and Queensland factories produce most of the output of the above industry.

**LEATHER GOODS (INCLUDING SADDLERY AND BELTING)
AUSTRALIA, 1959-60 TO 1963-64**

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	433	418	392	386	383
Number of persons employed	4,873	4,658	4,315	4,519	4,646
Salaries and wages paid \$'000	6,942	6,839	6,553	6,950	7,260
Value of power, fuel, etc., used \$'000	132	131	133	148	161
Value of materials used \$'000	13,214	13,010	12,064	13,151	14,083
Value of production \$'000	12,126	11,756	11,357	12,336	12,854
Total value of output \$'000	25,472	24,897	23,554	25,635	27,097
Value of land and buildings \$'000	5,643	6,171	6,383	6,884	7,238
Value of plant and machinery \$'000	1,292	1,669	1,690	1,484	1,572
Horse-power of engines ordinarily in use . . h.p.	3,769	3,678	3,155	3,387	3,716

As with other industries of this class, New South Wales and Victorian factories dominate this industry.

TAILORING AND READY-MADE CLOTHING: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	1,860	1,871	1,839	1,847	1,892
Number of persons employed	33,170	33,890	32,496	33,234	34,188
Salaries and wages paid \$'000	44,265	47,083	46,099	48,543	51,126
Value of power, fuel, etc., used \$'000	934	989	1,000	1,027	1,060
Value of materials used \$'000	81,582	85,348	82,170	88,153	92,342
Value of production \$'000	70,332	73,941	75,170	80,043	86,803
Total value of output \$'000	152,848	160,278	158,340	169,223	180,205
Value of land and buildings \$'000	26,574	30,765	32,378	35,586	38,214
Value of plant and machinery \$'000	6,294	6,892	6,902	7,032	7,406
Horse-power of engines ordinarily in use . h.p.	10,899	11,820	12,618	12,939	13,348

New South Wales and Victorian factories account for more than 90 per cent of the output of this industry.

DRESSMAKING AND MILLINERY: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	1,228	1,194	1,183	1,189	1,124
Number of persons employed	15,021	14,403	14,466	15,093	14,930
Salaries and wages paid \$'000	18,412	18,382	18,943	20,373	21,188
Value of power, fuel, etc., used \$'000	381	379	390	420	439
Value of materials used \$'000	23,517	23,332	24,076	26,055	28,285
Value of production \$'000	29,527	30,127	30,345	33,394	34,240
Total value of output \$'000	53,425	53,838	54,811	59,869	62,964
Value of land and buildings \$'000	15,246	16,554	17,322	18,231	19,232
Value of plant and machinery \$'000	2,229	2,169	2,166	2,365	2,742
Horse-power of engines ordinarily in use . h.p.	4,880	4,398	4,543	4,831	4,955

About two-thirds of the total Australian output comes from Victorian establishments.

SHIRTS, COLLARS AND UNDERCLOTHING: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	376	368	353	351	329
Number of persons employed	12,891	12,864	12,270	13,304	13,271
Salaries and wages paid \$'000	16,652	16,848	16,484	17,967	18,312
Value of power, fuel, etc., used \$'000	274	295	313	333	335
Value of materials used \$'000	31,646	31,591	31,276	32,604	34,453
Value of production \$'000	27,144	26,720	26,552	29,113	29,719
Total value of output \$'000	59,064	58,606	58,141	62,050	64,507
Value of land and buildings \$'000	8,101	8,890	9,135	10,328	11,086
Value of plant and machinery \$'000	2,413	2,698	2,689	2,705	2,942
Horse-power of engines ordinarily in use . h.p.	5,090	5,454	5,529	5,649	5,928

Victorian and New South Wales factories produce most of the output of the above industry.

FOUNDATION GARMENTS: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	70	71	66	64	62
Number of persons employed	3,589	3,663	3,981	4,012	3,948
Salaries and wages paid \$'000	4,958	4,939	5,345	5,569	5,616
Value of power, fuel, etc., used \$'000	86	93	99	102	104
Value of materials used \$'000	10,462	10,060	11,559	11,628	13,057
Value of production \$'000	9,283	9,732	10,704	10,931	12,428
Total value of output \$'000	19,831	19,885	22,362	22,661	25,589
Value of land and buildings \$'000	3,224	3,782	4,011	4,595	4,918
Value of plant and machinery \$'000	841	940	1,068	1,380	1,414
Horse-power of engines ordinarily in use . h.p.	1,739	1,995	2,023	1,987	2,082

BOOTS AND SHOES: AUSTRALIA, 1959-60 TO 1963-64

	1959-60(a)	1960-61(a)	1961-62(a)	1962-63(a)	1963-64
Number of factories	455	460	447	439	393
Number of persons employed	20,201	20,782	20,084	20,502	21,030
Salaries and wages paid \$'000	32,202	33,826	33,436	34,898	36,459
Value of power, fuel, etc., used \$'000	578	628	655	656	686
Value of materials used \$'000	56,276	59,850	59,991	61,165	63,347
Value of production \$'000	48,118	53,128	53,693	54,821	58,342
Total value of output \$'000	104,972	113,606	114,339	116,642	122,375
Value of land and buildings \$'000	11,101	12,316	13,427	14,238	16,243
Value of plant and machinery \$'000	9,302	10,718	10,768	14,097	16,077
Horse-power of engines ordinarily in use . . h.p.	17,674	14,599	14,805	15,351	15,594

(a) Includes details of Boot and Shoe Repairing in Tasmania.

The table above refers to boot and shoe factories as distinct from those devoted to repairing, except in Tasmania, where it has been necessary to include details of boot and shoe repairing, in order to avoid disclosure of confidential information for that State. Factories engaged in the manufacture of sand-shoes, goloshes and gum, etc., boots of rubber are not included here, but are classified under Rubber Goods, *see* page 141. About two-thirds of the output of boots and shoes is produced in Victoria.

FLOUR-MILLING: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	135	132	125	118	114
Number of persons employed	4,410	4,463	4,405	4,219	4,512
Salaries and wages paid \$'000	9,314	9,834	9,929	9,680	10,559
Value of power, fuel, etc., used \$'000	1,855	1,889	1,902	1,873	2,029
Value of materials used \$'000	115,911	125,651	123,862	120,792	132,712
Value of production \$'000	22,200	23,674	23,456	23,910	27,962
Total value of output \$'000	139,966	151,214	149,220	146,575	162,703
Value of land and buildings \$'000	13,964	14,718	14,227	15,769	18,024
Value of plant and machinery \$'000	12,350	11,368	10,922	11,696	13,065
Horse-power of engines ordinarily in use . . h.p.	49,253	50,265	48,586	47,393	54,256

OTHER GRAIN MILLS: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	234	237	242	244	254
Number of persons employed	4,740	4,988	5,106	5,829	5,322
Salaries and wages paid \$'000	9,215	9,956	10,423	10,954	11,495
Value of power, fuel, etc., used \$'000	1,910	1,965	2,100	2,164	2,227
Value of materials used \$'000	58,271	64,399	65,589	69,965	77,154
Value of production \$'000	26,038	26,596	29,445	32,399	35,718
Total value of output \$'000	86,219	92,960	97,134	104,528	115,100
Value of land and buildings \$'000	11,099	11,604	12,467	13,959	15,464
Value of plant and machinery \$'000	11,810	12,269	13,653	14,821	15,378
Horse-power of engines ordinarily in use . . h.p.	45,173	45,728	48,674	51,610	53,849

BAKERIES (INCLUDING CAKES AND PASTRY)
AUSTRALIA, 1959-60 TO 1963-64

	1959-60(a)	1960-61(a)	1961-62	1962-63	1963-64
Number of factories	3,990	3,895	3,855	3,779	3,689
Number of persons employed	21,253	21,743	20,566	21,061	21,627
Salaries and wages paid \$'000	29,872	32,893	31,899	33,708	36,163
Value of power, fuel, etc., used \$'000	5,248	5,475	5,338	5,479	5,635
Value of materials used \$'000	96,775	103,014	97,754	100,009	104,820
Value of production \$'000	70,790	76,617	77,063	83,058	86,550
Total value of output \$'000	172,813	185,106	180,155	188,546	197,005
Value of land and buildings \$'000	47,899	52,560	55,076	58,474	61,898
Value of plant and machinery \$'000	30,244	35,202	33,783	37,407	37,903
Horse-power of engines ordinarily in use . . h.p.	34,954	40,899	35,934	37,589	40,175

(a) Includes confectionery in Tasmania.

The table above contains information regarding establishments in which the manufacture of bread, cakes, etc., was carried on. Since the details refer only to establishments coming within the definition of a factory as explained at the beginning of this chapter, the table does not give complete details of the industry, as a large number of bakeries, etc. not coming within the definition are excluded.

BISCUITS: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	51	52	53	52	53
Number of persons employed	6,079	6,153	6,092	6,199	6,262
Salaries and wages paid \$'000	9,818	10,283	10,903	11,237	11,696
Value of power, fuel, etc., used \$'000	1,075	1,087	1,106	1,145	1,170
Value of materials used \$'000	23,246	24,170	25,448	26,052	27,483
Value of production \$'000	18,342	19,659	20,670	20,960	21,628
Total value of output \$'000	42,663	44,916	47,224	48,157	50,281
Value of land and buildings \$'000	9,515	10,005	10,531	11,411	11,278
Value of plant and machinery \$'000	7,455	8,002	8,341	8,462	8,868
Horse-power of engines ordinarily in use . h.p.	13,290	13,720	14,017	13,443	16,381

Three-quarters of the output of biscuits comes from New South Wales and Victoria.

SUGAR-MILLS: NEW SOUTH WALES AND QUEENSLAND, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
New South Wales—					
Number of factories	3	3	3	3	3
Number of persons employed	243	200	219	261	247
Queensland—					
Number of factories	31	31	31	31	31
Number of persons employed	6,197	6,014	6,053	6,387	6,981

Sugar-cane is grown in New South Wales and Queensland, and particulars of area, yield, etc. are given in detail in the chapter Rural Industry. The products of the sugar-mills are raw sugar and molasses, the former being sent to the refineries in different parts of Australia for further treatment. In 1963-64 there were two sugar refineries in Queensland and one each in New South Wales, Victoria, South Australia and Western Australia.

CONFECTIONERY: AUSTRALIA, 1959-60 TO 1963-64

	1959-60(a)	1960-61(a)	1961-62	1962-63	1963-64
Number of factories	214	209	197	189	189
Number of persons employed	6,765	6,890	7,987	8,015	8,156
Salaries and wages paid \$'000	10,786	11,332	14,277	14,555	15,185
Value of power, fuel, etc., used \$'000	1,110	1,183	1,451	1,542	1,595
Value of materials used \$'000	35,348	36,767	44,955	46,426	49,471
Value of production \$'000	22,278	24,781	29,660	31,604	32,371
Total value of output \$'000	58,736	61,731	76,066	79,572	83,437
Value of land and buildings \$'000	10,617	11,180	15,269	17,264	17,459
Value of plant and machinery \$'000	9,489	10,855	15,270	16,954	17,780
Horse-power of engines ordinarily in use . h.p.	30,571	32,006	38,948	42,665	43,165

(a) Excludes Tasmania. In Bakeries, etc., page 135.

New South Wales, Victoria and Tasmania produce most of the output of the above industry.

JAM, FRUIT AND VEGETABLE CANNING, PICKLES, SAUCES, VINEGAR
AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	177	172	172	170	167
Number of persons employed	10,793	10,865	12,092	11,897	12,397
Salaries and wages paid \$'000	19,787	20,154	23,652	24,152	25,961
Value of power, fuel, etc., used \$'000	1,984	2,074	2,402	2,412	2,609
Value of materials used \$'000	79,906	83,735	101,634	95,297	103,551
Value of production \$'000	40,508	42,151	55,805	55,764	60,924
Total value of output \$'000	122,398	127,960	159,841	153,473	167,084
Value of land and buildings \$'000	24,190	26,299	28,838	29,840	32,105
Value of plant and machinery \$'000	20,323	22,422	24,471	26,458	30,011
Horse-power of engines ordinarily in use . h.p.	42,250	44,819	45,852	48,574	53,024

BACON-CURING: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	83	83	83	87	85
Number of persons employed	4,068	4,215	4,482	4,675	4,865
Salaries and wages paid \$'000	7,706	8,269	8,831	9,315	9,924
Value of power, fuel, etc., used \$'000	864	880	985	1,043	1,113
Value of materials used \$'000	56,438	58,090	54,190	61,989	67,841
Value of production \$'000	13,557	15,925	19,051	19,563	19,155
Total value of output \$'000	70,859	74,895	74,226	82,595	88,109
Value of land and buildings \$'000	6,776	7,926	8,045	8,546	8,750
Value of plant and machinery \$'000	4,100	5,488	4,958	5,455	5,919
Horse-power of engines ordinarily in use . h.p.	15,670	16,044	17,537	18,236	18,152

Bacon and ham and other pig products are dealt with more fully in the chapter Rural Industry.

BUTTER, CHEESE AND CONDENSED AND PROCESSED MILK
AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	363	361	353	348	347
Number of persons employed	11,139	11,072	11,317	11,320	11,510
Salaries and wages paid \$'000	22,084	23,049	24,476	24,883	26,314
Value of power, fuel, etc., used \$'000	5,840	5,650	5,863	5,961	6,138
Value of materials used \$'000	224,614	213,214	223,850	226,691	244,587
Value of production \$'000	49,633	48,974	51,586	52,425	59,237
Total value of output \$'000	280,087	267,838	281,299	285,077	309,962
Value of land and buildings \$'000	28,044	29,403	30,554	31,032	31,534
Value of plant and machinery \$'000	32,337	34,092	35,443	37,797	39,361
Horse-power of engines ordinarily in use . h.p.	111,149	114,392	114,643	118,087	120,084

Victoria produces more than half the total Australian output of the industry. The butter, cheese and condensed milk industries are dealt with more fully in the chapter Rural Industry.

MEAT AND FISH PRESERVING: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	128	143	149	159	164
Number of persons employed	9,326	9,031	9,491	10,032	10,161
Salaries and wages paid \$'000	19,829	18,638	21,048	21,917	22,923
Value of power, fuel, etc., used \$'000	2,488	2,399	2,623	2,854	3,146
Value of materials used \$'000	130,232	125,372	133,621	142,070	158,668
Value of production \$'000	28,389	30,771	37,687	38,266	43,539
Total value of output \$'000	161,109	158,542	173,931	183,190	205,353
Value of land and buildings \$'000	17,234	18,693	20,859	20,624	21,013
Value of plant and machinery \$'000	11,158	13,512	14,163	15,447	15,162
Horse-power of engines ordinarily in use . h.p.	39,390	44,731	49,253	53,652	56,424

The industries included in this group are engaged chiefly in the freezing and preserving of meat. Most abattoirs are excluded, except in Queensland and Western Australia. Works have been established at the seaports for the purpose of handling beef, lamb and mutton for export, and insulated space for the carriage of chilled and frozen produce is provided by shipping companies trading between Australia and other parts of the world. In recent years there has been considerable expansion in the canning of meat and fish. Particulars of the quantities and values of beef, mutton and lamb preserved by cold process exported from Australia over a series of years will be found in the chapter Rural Industry.

CONDIMENTS, COFFEE, SPICES: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	250	254	258	260	238
Number of persons employed	4,407	4,487	4,463	5,283	5,218
Salaries and wages paid \$'000	6,973	7,542	7,714	9,805	9,975
Value of power, fuel, etc., used \$'000	552	565	597	685	743
Value of materials used \$'000	37,024	38,429	39,470	43,940	45,737
Value of production \$'000	19,781	21,077	22,211	27,558	27,506
Total value of output \$'000	57,357	60,071	61,278	72,183	73,986
Value of land and buildings \$'000	11,708	13,652	15,284	18,519	18,766
Value of plant and machinery \$'000	4,823	5,662	7,143	8,330	7,956
Horse-power of engines ordinarily in use . h.p.	12,941	14,231	14,625	16,811	17,088

BREWERIES: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	25	25	25	24	24
Number of persons employed	5,701	5,626	5,512	5,741	5,744
Salaries and wages paid \$'000	12,876	13,308	13,756	14,001	14,753
Value of power, fuel, etc., used \$'000	2,981	2,988	3,062	3,118	3,141
Value of materials used \$'000	45,463	48,606	51,496	54,311	59,967
Value of production \$'000	37,240	39,579	43,113	45,609	48,355
Total value of output(a) \$'000	85,684	91,173	97,671	103,038	111,463
Value of land and buildings \$'000	25,847	26,006	27,148	29,681	30,121
Value of plant and machinery \$'000	30,852	29,697	31,250	30,005	30,733
Horse-power of engines ordinarily in use . . h.p.	48,396	49,172	50,083	50,237	53,765

(a) Excludes excise duty.

AERATED WATERS AND CORDIALS: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	552	548	535	525	509
Number of persons employed	5,021	5,275	4,960	5,190	5,193
Salaries and wages paid \$'000	8,205	8,917	8,660	9,054	9,434
Value of power, fuel, etc., used \$'000	812	821	808	879	936
Value of materials used \$'000	25,530	26,799	25,543	28,059	30,985
Value of production \$'000	22,711	23,316	23,984	26,691	27,473
Total value of output \$'000	49,053	50,936	50,335	55,629	59,394
Value of land and buildings \$'000	12,464	14,976	15,670	17,251	19,027
Value of plant and machinery \$'000	9,033	10,324	11,403	11,991	12,688
Horse-power of engines ordinarily in use . . h.p.	15,799	16,363	16,350	17,116	17,610

WINERIES AND DISTILLERIES: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	165	164	153	161	169
Number of persons employed	2,058	2,095	2,111	2,084	2,204
Salaries and wages paid \$'000	3,780	4,034	4,136	4,100	4,459
Value of power, fuel, etc., used \$'000	804	766	810	772	798
Value of materials used \$'000	15,974	18,656	19,535	18,271	21,431
Value of production \$'000	9,801	8,854	9,728	9,468	11,874
Total value of output \$'000	26,579	28,276	30,073	28,511	34,103
Value of land and buildings \$'000	5,518	6,163	6,081	6,588	7,285
Value of plant and machinery \$'000	5,615	6,030	6,660	7,429	7,789
Horse-power of engines ordinarily in use . . h.p.	11,604	16,450	16,676	17,601	17,942

South Australia is the principal wine-producing State, and produces more than half the Australian output. Most of the remainder comes from New South Wales and Victoria.

TOBACCO, CIGARS AND CIGARETTES: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	21	20	18	18	15
Number of persons employed	5,046	5,178	4,914	4,671	4,498
Salaries and wages paid \$'000	9,548	10,464	10,564	10,277	10,898
Value of power, fuel, etc., used \$'000	353	450	468	512	508
Value of materials used \$'000	73,157	81,431	77,136	78,592	78,380
Value of production \$'000	33,778	36,757	38,981	40,377	45,233
Total value of output(a) \$'000	107,288	118,638	116,585	119,481	124,121
Value of land and buildings \$'000	7,240	7,103	8,613	9,280	10,004
Value of plant and machinery \$'000	9,923	12,418	13,719	14,187	13,784
Horse-power of engines ordinarily in use . . h.p.	10,417	10,342	11,203	12,033	11,955

(a) Excludes excise duty.

There are no such factories in South Australia or Tasmania, and Queensland and Western Australian production is relatively small.

ICE-CREAM: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	52	55	55	54	53
Number of persons employed	2,080	2,124	2,237	2,295	2,518
Salaries and wages paid \$'000	3,569	3,730	4,383	4,791	5,429
Value of power, fuel, etc., used \$'000	761	789	825	905	1,040
Value of materials used \$'000	12,353	12,923	14,324	15,273	17,098
Value of production \$'000	10,110	9,817	11,972	11,676	13,902
Total value of output \$'000	23,224	23,529	27,121	27,854	32,040
Value of land and buildings \$'000	6,790	7,072	7,185	9,654	11,297
Value of plant and machinery \$'000	6,331	6,520	7,500	13,468	15,260
Horse-power of engines ordinarily in use . h.p.	15,959	15,068	16,071	18,468	20,562

SAWMILLS AND PLYWOOD AND VENEER MILLS
AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	2,791	2,703	2,585	2,514	2,421
Number of persons employed	36,040	34,701	32,382	31,993	32,202
Salaries and wages paid \$'000	62,345	63,186	59,631	60,217	63,119
Value of power, fuel, etc., used \$'000	5,208	5,243	5,196	5,258	5,324
Value of materials used \$'000	153,353	150,112	143,355	146,066	156,464
Value of production \$'000	116,825	113,051	106,984	106,431	115,903
Total value of output \$'000	275,386	268,406	255,535	257,755	277,691
Value of land and buildings \$'000	33,311	37,096	36,028	37,590	39,004
Value of plant and machinery \$'000	39,271	41,034	40,444	40,573	40,111
Horse-power of engines ordinarily in use . h.p.	407,440	425,280	417,084	428,421	437,807

Sawmilling is the most important industry in Class 10. Because of difficulties associated with the classifying of sawmills into forest and town mills, they have been combined in the above table, together with plywood and veneer mills. The figures exclude particulars of a small number of itinerant and travelling sawmills.

JOINERY: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	2,149	2,217	2,256	2,247	2,239
Number of persons employed	17,203	17,912	17,239	17,509	17,594
Salaries and wages paid \$'000	30,861	34,383	34,051	35,340	36,706
Value of power, fuel, etc., used \$'000	827	911	919	965	969
Value of materials used \$'000	59,409	65,671	63,174	64,092	70,156
Value of production \$'000	48,890	54,436	53,423	55,761	59,291
Total value of output \$'000	109,126	121,018	117,516	120,818	130,416
Value of land and buildings \$'000	23,398	27,316	28,673	30,543	32,757
Value of plant and machinery \$'000	8,886	9,651	10,096	10,200	10,811
Horse-power of engines ordinarily in use . h.p.	80,902	86,375	86,240	89,459	89,578

CABINET AND FURNITURE MAKING AND UPHOLSTERY
AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	1,664	1,633	1,617	1,625	1,638
Number of persons employed	16,475	15,711	15,132	15,726	15,948
Salaries and wages paid \$'000	28,374	28,437	28,166	29,395	30,874
Value of power, fuel, etc., used \$'000	692	700	736	776	830
Value of materials used \$'000	52,246	51,999	53,110	56,241	61,062
Value of production \$'000	47,003	46,270	46,096	48,738	52,312
Total value of output \$'000	99,941	98,969	99,942	105,755	114,204
Value of land and buildings \$'000	23,236	25,438	27,246	29,309	30,905
Value of plant and machinery \$'000	5,737	5,928	6,316	6,982	7,716
Horse-power of engines ordinarily in use . h.p.	45,955	45,313	46,000	45,641	46,599

These industries constitute the principal manufactures in Class 11.

**GOVERNMENT AND GENERAL PRINTING WORKS
AUSTRALIA, 1959-60 TO 1963-64**

—	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	1,573	1,641	1,706	1,738	1,780
Number of persons employed	27,744	29,080	29,936	30,614	31,637
Salaries and wages paid \$'000	53,421	58,730	61,826	64,592	69,623
Value of power, fuel, etc., used \$'000	1,593	1,785	1,884	2,058	2,227
Value of materials used \$'000	70,349	76,498	74,945	82,395	89,280
Value of production \$'000	93,135	102,246	110,134	117,270	124,881
Total value of output \$'000	165,077	180,529	186,963	201,723	216,388
Value of land and buildings \$'000	43,197	51,227	59,364	61,046	67,550
Value of plant and machinery \$'000	38,702	43,778	47,418	50,504	54,510
Horse-power of engines ordinarily in use . . h.p.	43,561	47,269	50,129	52,182	54,491

The establishments covered in the table above include those engaged in lithographic printing, bookbinding, paper ruling and linotyping, and Government printing works.

NEWSPAPERS AND PERIODICALS: AUSTRALIA, 1959-60 TO 1963-64

—	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	429	420	421	415	411
Number of persons employed	15,437	15,789	15,491	15,500	16,052
Salaries and wages paid \$'000	34,112	38,011	37,748	38,140	40,225
Value of power, fuel, etc., used \$'000	1,230	1,307	1,352	1,392	1,480
Value of materials used \$'000	59,453	61,474	55,634	58,153	61,446
Value of production \$'000	61,534	67,994	69,088	70,385	74,133
Total value of output \$'000	122,217	130,775	126,074	129,930	137,059
Value of land and buildings \$'000	30,385	32,032	33,236	34,396	39,053
Value of plant and machinery \$'000	27,920	28,832	31,438	32,400	37,403
Horse-power of engines ordinarily in use . . h.p.	40,116	45,815	45,776	44,094	44,029

MANUFACTURED STATIONERY: AUSTRALIA, 1959-60 TO 1963-64

—	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	143	142	153	150	148
Number of persons employed	5,088	5,148	5,221	5,436	5,563
Salaries and wages paid \$'000	9,083	9,527	10,262	10,946	11,746
Value of power, fuel, etc., used \$'000	371	390	450	465	524
Value of materials used \$'000	24,902	26,360	30,328	33,299	37,028
Value of production \$'000	22,617	21,511	25,290	26,818	30,272
Total value of output \$'000	47,890	48,261	56,068	60,582	67,824
Value of land and buildings \$'000	10,374	11,018	12,843	14,329	14,645
Value of plant and machinery \$'000	7,020	7,418	8,793	10,274	10,774
Horse-power of engines ordinarily in use . . h.p.	9,132	9,462	10,853	10,936	10,955

New South Wales and Victoria produce about 90 per cent of the output of this industry.

**CARDBOARD BOXES, CARTONS AND CONTAINERS AND PAPER BAGS
AUSTRALIA, 1959-60 TO 1963-64**

—	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	226	231	239	243	254
Number of persons employed	9,429	10,041	10,133	10,832	11,501
Salaries and wages paid \$'000	17,801	19,353	20,432	22,236	24,543
Value of power, fuel, etc., used \$'000	756	824	892	965	1,045
Value of materials used \$'000	63,160	66,994	71,375	79,851	87,003
Value of production \$'000	40,170	42,814	44,823	48,202	53,694
Total value of output \$'000	104,086	110,632	117,090	129,018	141,743
Value of land and buildings \$'000	17,601	21,190	22,886	27,081	30,764
Value of plant and machinery \$'000	16,167	20,401	21,847	25,083	26,268
Horse-power of engines ordinarily in use . . h.p.	19,594	21,613	22,961	26,217	28,154

PAPER MAKING, INCLUDING PULP MILLS: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	20	22	23	24	26
Number of persons employed	8,775	8,822	8,147	8,678	9,205
Salaries and wages paid \$'000	23,959	24,111	22,437	24,694	28,011
Value of power, fuel, etc., used \$'000	7,812	8,400	8,219	9,305	9,944
Value of materials used \$'000	53,202	55,847	53,010	59,800	66,555
Value of production \$'000	56,652	55,316	52,911	60,409	66,195
Total value of output \$'000	117,666	119,563	114,140	129,514	142,694
Value of land and buildings \$'000	26,614	27,965	31,809	34,336	34,310
Value of plant and machinery \$'000	54,037	66,753	67,470	73,911	73,352
Horse-power of engines ordinarily in use . . h.p.	189,774	216,539	215,927	256,291	256,769

Although the paper manufacturing industry has been established in Australia for many years, it was not until the manufacture of paper pulp from indigenous timber commenced in 1938-39 that any marked development occurred. The number of factories operating in 1963-64 comprised four in New South Wales, thirteen in Victoria, two in Queensland, two in South Australia, one in Western Australia, and four in Tasmania. In Tasmania, newsprint, writing and printing papers are produced, and in the other States, wrappings, other papers and boards. Mills producing pulp from eucalypt timber are operating in Victoria and Tasmania, while in South Australia pulp is being produced from locally-grown softwoods.

RUBBER GOODS: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	118	116	114	117	119
Number of persons employed	15,620	15,416	13,993	15,702	16,944
Salaries and wages paid \$'000	34,783	34,077	31,439	37,482	41,181
Value of power, fuel, etc., used \$'000	4,635	4,763	4,562	5,112	5,354
Value of materials used \$'000	86,764	84,077	71,884	86,020	93,452
Value of production \$'000	52,145	56,052	52,447	61,433	67,037
Total value of output \$'000	143,544	144,892	128,893	152,565	165,843
Value of land and buildings \$'000	15,170	18,242	18,979	20,687	32,160
Value of plant and machinery \$'000	19,086	20,530	20,613	23,196	30,688
Horse-power of engines ordinarily in use . . h.p.	128,393	131,947	134,428	140,956	151,918

Victorian and New South Wales factories produce about 90 per cent of the output of this industry.

TYRE RETREADING AND REPAIRING: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	502	513	536	542	555
Number of persons employed	3,043	2,979	3,181	3,214	3,317
Salaries and wages paid \$'000	5,372	5,492	6,122	6,434	6,822
Value of power, fuel, etc., used \$'000	813	831	887	897	930
Value of materials used \$'000	11,867	12,673	13,784	14,505	15,903
Value of production \$'000	12,182	13,799	16,128	16,889	18,667
Total value of output \$'000	24,812	27,303	30,799	32,291	35,500
Value of land and buildings \$'000	11,706	12,822	14,771	16,721	18,435
Value of plant and machinery \$'000	5,394	5,449	5,536	5,359	5,844
Horse power of engines ordinarily in use . . h.p.	11,494	12,039	13,079	13,865	14,406

PLASTIC MOULDING AND PRODUCTS: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	375	398	421	430	440
Number of persons employed	10,180	10,658	10,496	11,801	12,668
Salaries and wages paid \$'000	20,320	21,507	21,302	25,083	27,904
Value of power, fuel, etc., used \$'000	1,698	1,800	1,933	2,257	2,530
Value of materials used \$'000	52,787	49,226	48,520	57,598	63,489
Value of production \$'000	39,772	40,789	41,834	48,499	57,641
Total value of output \$'000	94,257	91,815	92,287	108,354	123,660
Value of land and buildings \$'000	15,613	17,556	20,111	23,321	25,485
Value of plant and machinery \$'000	16,017	19,494	21,210	25,397	28,965
Horse-power of engines ordinarily in use . . h.p.	37,055	41,635	47,083	54,576	58,759

ELECTRIC LIGHT AND POWER WORKS: AUSTRALIA, 1959-60 TO 1963-64

—	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	304	290	285	275	269
Number of persons employed	12,810	12,298	12,441	12,272	12,162
Salaries and wages paid \$'000	29,128	30,036	31,832	32,007	33,235
Value of power, fuel, etc., used \$'000	81,511	84,733	83,361	81,642	85,708
Value of materials used \$'000	9,678	9,952	10,573	10,386	11,492
Value of production \$'000	142,511	150,944	157,069	179,113	194,020
Total value of output \$'000	233,700	245,629	251,003	271,141	291,220
Value of land and buildings \$'000	272,172	279,580	490,779	499,901	497,126
Value of plant and machinery \$'000	519,798	556,014	583,073	613,244	622,087
Generators installed—kilowatt capacity '000kW	5,953	6,665	7,215	7,499	7,583

Further information on this subject is continued in the chapter Electric Power Generation and Distribution.

Particulars of the types of engines and generators installed in Electric Light and Power Works and their rated horse-power are given on page 108.

GAS-WORKS: AUSTRALIA, 1959-60 TO 1963-64

—	1959-60	1960-61	1961-62	1962-63	1963-64
Number of factories	88	84	85	87	87
Number of persons employed	3,790	3,733	3,674	3,561	3,449
Salaries and wages paid \$'000	8,734	9,164	9,260	9,288	9,157
Value of power, fuel, etc., used \$'000	5,884	6,025	6,156	5,710	5,627
Value of materials used \$'000	29,475	29,778	28,360	26,651	26,586
Value of production \$'000	24,075	27,083	28,108	31,739	33,289
Total value of output \$'000	59,434	62,886	62,624	64,100	65,502
Value of land and buildings \$'000	11,892	14,469	15,036	15,072	15,327
Value of plant and machinery \$'000	58,692	58,693	59,691	59,382	60,559
Horse-power of engines ordinarily in use . h.p.	46,058	46,363	52,037	58,989	56,803

CHAPTER 6

ELECTRIC POWER GENERATION AND DISTRIBUTION

This chapter is divided into three major parts: the Introduction, which deals briefly with the resources, generation and distribution, and future development of electric power in Australia; the Snowy Mountains Hydro-electric Scheme; and the origins, development, present situation and new projects of electrical systems in each Australian State and Territory.

The information contained in the chapter relates to situations existing and projects contemplated in December 1965, and may be considerably affected by changes in policy or plans, or by developments in the projects themselves.

INTRODUCTION

Distribution of population and location of power resources in Australia

The two principal centres of population and industry in Australia, the metropolitan areas of Sydney and Melbourne, make the greatest demands for electric power, and their growth has been associated with the development of large deposits of coal located relatively close to the source of demand. This, together with the fact that the major water resources are also located in the south-eastern portion of Australia, materially influences the distribution of industrial population and the location of major electric power stations. By far the most important source of energy used in the production of electric power in Australia is coal. At 30 June 1964 thermal power equipment represented 71 per cent, hydro plant 26 per cent, and internal combustion equipment 3 per cent of the total installed generating capacity.

Most of Australia is poorly supplied with water, only about 13 per cent receiving an annual rainfall of 30 inches or over, and these areas are confined largely to Tasmania and to the narrow coastal strip along the east coast of the mainland. The only region on the mainland of Australia high enough to receive reliable winter snowfall, and from which, therefore, reasonably constant water supplies throughout the year can be expected, is the mountain chain which stretches from the high plateaux of south-eastern New South Wales to the north-eastern highlands of Victoria. The hydro-electric potential of this area is considerable, and plans have been formulated to develop more than 4,000,000 kW by 1975. The two major construction projects in this area are the Snowy Mountains and Kiewa schemes. Other hydro-electric potential does exist on the mainland on the rivers of the coastal areas of New South Wales and Queensland, but the amount available is smaller than the potential of the Alpine region. In Tasmania, hydro-electric resources have been estimated at about 50 per cent of the total Australian hydro-electric potential. On the mainland the chief source of energy is coal; in Tasmania it is water.

Electric power generation and distribution

At the beginning of this century Australia's electrical undertakings were carried on mainly by private enterprise, but with some measure of governmental control designed to provide standards of safety and to define the scope and obligations of the private organizations. A trend towards public ownership commenced during the 1914-18 War and became more pronounced after the 1939-45 War. By 1961 all major generating stations supplying the public were, in varying degrees, under the control of statutory organizations constituted with the object of unifying and co-ordinating the generation and distribution of electricity supplies. There are still a large number of small private and municipal enterprises generating power for supply to country towns, although central authorities are extending supply to these places wherever practicable. In many areas it has been, and remains, the practice for central authorities to sell power in bulk to local distributing organizations which undertake reticulation.

In addition to the private, local government and statutory organizations which generate and/or distribute electricity for sale, numerous firms generate power for use in their own establishments, particularly those engaged in mining pursuits remote from the main centres of population. This chapter, however, is concerned mainly with the activities of central electric stations, as the power regularly produced for such internal consumption is, in any case, a relatively small proportion of the total power produced. The measures taken by authorities to satisfy the demand created by the post-war growth in population and building and by developments in industry and commerce are described in the following pages.

SNOWY MOUNTAINS HYDRO-ELECTRIC SCHEME*

Snowy Mountains Hydro-electric Power Act 1949

In July 1949 the Commonwealth Government established the Snowy Mountains Hydro-electric Authority, and empowered it to generate electricity by means of hydro-electric works in the Snowy Mountains Area; supply electricity to the Commonwealth (i) for defence purposes, (ii) for consumption in the Australian Capital Territory; and supply to a State, or to a State Authority, electricity not required for defence purposes or for consumption in the Australian Capital Territory.

The Authority is constituted by a Commissioner and two Associate Commissioners, the three appointments being made by the Governor-General. It is empowered to construct, maintain, operate, protect, manage and control works:

- (a) for the collection, diversion and storage of water in the Snowy Mountains Area;
- (b) for the generation of electricity in that area;
- (c) for the transmission of the electricity generated;
- (d) incidental or related to the construction, maintenance, operation, protection, management or control of any works otherwise specified in the Act.

The Snowy Mountains Act is supported by a detailed agreement between the States of New South Wales and Victoria and the Commonwealth with regard to the construction and operation of the Scheme, the distribution of power and water, charges to be made for electricity, and other such matters. The Snowy Mountains Council, established under the terms of the Agreement and consisting of representatives of the Commonwealth, the Authority and the two States, directs and controls the operation and maintenance of the permanent works of the Authority and the allocation of loads to generating stations.

Snowy Mountains Hydro-electric Scheme

The Snowy Mountains area in south-eastern New South Wales is the only part of the continent in which altitudes exceed 7,000 feet and in which there is a substantial area over the altitude of 6,000 feet. The precipitation which results from the presence of this barrier on the line of the prevailing winter depressions of Antarctic origin amounts to as much as 150 inches a year in the vicinity of Mt. Kosciuszko, the highest point in Australia. The drainage from the snowfields is practically all to three systems—those of the Murray and Murrumbidgee Rivers, which flow inland, and that of the Snowy River, which flows southward to Bass Strait.

The broad basis of the Snowy scheme is to transfer waters, which would otherwise flow to the sea unharnessed, from the Snowy River and its tributaries to the inland system, so that the water may be used for irrigation and to provide power. It involves two main diversions, the diversion of the Eucumbene, a tributary of the Snowy, to the Upper Tumut River, and the diversion of the main stream of the Snowy River at Island Bend and Jindabyne to the Swampy Plain River. These two diversions divide the scheme geographically into two sections, the Snowy-Tumut Development and the Snowy-Murray Development (*see* plate 18). For purposes of both power production and irrigation it is necessary to regulate run-off, and this will be achieved by the use of Lake Eucumbene (formed by the construction of Eucumbene Dam) and other smaller storages to control the waters of the Eucumbene, Murrumbidgee, Tooma and Tumut Rivers of the Snowy-Tumut Development and of the Snowy and Geehi Rivers for the Snowy-Murray Development. A sectional diagram of the scheme appears on plate 19.

Snowy-Tumut Development. This development comprises works for the diversion and regulation of the waters of the Eucumbene, Upper Tooma, Upper Murrumbidgee and Upper Tumut Rivers and their combined development through a series of power stations down the Tumut River. A major dam has been constructed on the Eucumbene River to create Lake Eucumbene, which has an ultimate usable storage of 3.5 million acre feet. The waters of the Upper Murrumbidgee River are diverted into Lake Eucumbene by a dam at Tantangara and a 10½-mile tunnel from Tantangara Reservoir. From Lake Eucumbene, the water flows through a 14-mile tunnel to Tumut Pond Reservoir on the upper reaches of the Tumut River, where it joins the waters of the Tumut River itself and the waters of the Tooma River diverted to Tumut Pond Reservoir by a diversion dam and a 9-mile tunnel. The 14-mile Eucumbene-Tumut Tunnel is used during periods of high flow to divert waters of the Tumut River from Happy Jacks Shaft or the combined waters of the Tumut and Tooma Rivers from Tumut Pond Reservoir back to Lake Eucumbene for storage.

From Tumut Pond Reservoir water is conveyed by pressure tunnel to Tumut 1 underground Power Station (capacity 320,000 kW), returned to the Tumut River and then by another pressure tunnel to Tumut 2 underground Power Station (capacity 280,000 kW), thence discharging into Talbingo Reservoir, also on the Tumut River.

* *See also* the chapter Water Conservation and Irrigation of this issue and special detailed article in Year Book No. 42, pp. 1103-1130.

Tumut 3 Power Station, the largest station of the scheme (capacity 1,500,000 kW of which 500,000 kW will be provided by pump turbines) will be constructed below Talbingo Reservoir and will discharge into Jounama Pondage on the Tumut River. This pondage will provide a downstream pumping pool and also re-regulate discharges from Tumut 3 Power Station as required. Releases from Jounama Pondage will then enter Blowering Reservoir formed by Blowering Dam. This dam is under construction by the Snowy Mountains Authority as an agent for the State of New South Wales and will provide for the regulation of power station discharges for irrigation use in the Murrumbidgee Valley. The Authority will construct a power station at the foot of the dam to generate power from releases of water for irrigation purposes.

Snowy-Murray Development. The principal features of the Snowy-Murray Development are the diversion of the main stream of the Snowy River by tunnels, shafts, and pipelines westwards through the Great Dividing Range into the Swampy Plain River in the catchment of the Upper Murray, and the development of power on the western slopes of the Alps. The main works of the development will be as follows.

- (a) A tunnel from the Snowy River near Island Bend through the Great Dividing Range to Geehi Reservoir on the Geehi River, and two power projects between Geehi Reservoir and the Swampy Plain River near Khancoban. The power stations associated with these two power projects, Murray 1 and Murray 2, will have a combined capacity of 1,500,000 kW.
- (b) A tunnel from a small dam on the Snowy River near Island Bend to Eucumbene Dam to carry Snowy water to Lake Eucumbene for storage at times of high river flows. When river flows are lower than average, this stored water will be returned towards Island Bend and thence through the Snowy-Geehi Tunnel to Geehi Reservoir and Murray 1 and Murray 2 Power Stations.
- (c) A dam on the Snowy River near Jindabyne to store the residual flow of the Snowy and Eucumbene Rivers downstream from Island Bend and Eucumbene Dams, including the flows of major tributaries, the Crackenback and Mowamba Rivers; and the construction of a pumping plant, pipeline and tunnel to lift this water from Jindabyne Reservoir to the Snowy-Geehi Tunnel near Island Bend, where it will join the flow to the Geehi Reservoir for use through Murray 1 and Murray 2 Power Stations.

The power output of this section of the Scheme will be increased by the construction of subsidiary hydro-electric projects on the Upper Snowy River above Island Bend and on Windy Creek, a tributary of the Upper Geehi.

Utilization of power from scheme

The future electric power plants on the mainland of Australia will be predominantly thermal or thermo-nuclear installations, and in an electrical system in which the greater part of the energy is generated in thermal plants it is usually found that the hydro installations operate to the best advantage on peak load. However, the existing New South Wales and Victorian systems include a proportion of relatively old and less efficient installations which, for reasons of fuel economy, are also best used for the production of peak load power. Therefore, in order to utilize the potential of the Snowy Mountains Scheme most effectively, the order of development is being arranged so that the early stations operate, initially, somewhat below the peak of the system load, with a progressive change to predominantly peak load operation as construction proceeds and as the load increases in magnitude.

The Snowy Mountains Scheme is situated about midway between the principal load centres of Sydney and Melbourne and is connected to those cities by 330 kV transmission lines. It is, consequently, in a position to take advantage of the diversity in the power requirements of these two load systems, a most important factor in so far as it affects the economy of operation of the supply systems of the two States. Although most of the output from the scheme will go to the States of New South Wales and Victoria, the Commonwealth Government has the right to draw from the scheme its requirements of power and energy for the Australian Capital Territory and for defence purposes. For convenience, the Commonwealth's requirements are drawn from the New South Wales transmission network by an exchange arrangement between the Commonwealth and the Electricity Commission of New South Wales. Electricity over and above that required by the Commonwealth Government is divided between the States of New South Wales and Victoria in the ratio 2 : 1.

Progress of scheme and future programme

The scheme's first power station, Guthega, of 60,000 kW initial capacity, came into operation in February 1955. It was followed by Tumut 1, an underground power station with a capacity of 320,000 kW, in 1959, and by the 280,000 kW Tumut 2 underground Power Station in 1962. The total installed capacity of the scheme at present is 660,000 kW. Eucumbene Dam, which provides the major regulating storage for the scheme, was completed in May 1958. Tumut Pond

Dam, completed in September 1958, provides the balancing storage for the power stations of the Upper Tumut Works. The first trans-mountain diversion of water from Lake Eucumbene to the Tumut River at Tumut Pond was made possible when the 14-mile Eucumbene-Tumut Tunnel was completed in June 1959. The 10½-mile Murrumbidgee-Eucumbene Tunnel and the 9-mile Tooma-Tumut Tunnel came into operation early in 1961. Following the completion of the Upper Tumut Works, construction activity has been concentrated on the Snowy-Murray development. The first unit of this development, the Eucumbene-Snowy project which comprises Island Bend Dam and the 15-mile Eucumbene-Snowy Tunnel, commenced diverting Snowy River water to storage in Lake Eucumbene in August 1965. Construction is well advanced on the 9-mile trans-mountain Snowy-Geehi Tunnel, the 7½-mile Murray 1 Pressure Tunnel, the 1-mile Pressure Pipeline and the 950,000 kW Murray 1 Power Station. These works, together with the Khancoban Dam, which will regulate power station releases before discharge into the Murray River, are to be substantially completed in 1966. At this time, the first trans-mountain diversion of water from the Snowy River to the Murray River and the first generation of electricity from the Murray 1 Power Station will occur.

STATES AND TERRITORIES

New South Wales

In Year Book No. 39, an account was given in some detail of the origin and development of electricity generation and distribution in New South Wales. At present, the following three main Acts govern electricity supply in New South Wales.

The Local Government Act, 1919, which lays down the various rights and responsibilities of local government bodies in the establishment and operation of electricity trading undertakings.

The Electricity Development Act, 1945-1964, which established the Electricity Authority of New South Wales as the body responsible for the co-ordination of electricity supply throughout the State.

The Electricity Commission Act, 1950-1961, which constituted the Electricity Commission of New South Wales as the major generating authority and not subject to the provisions of the Electricity Development Act.

Electricity Commission of New South Wales and other electricity supply authorities

The Commission, which is directly responsible to the Minister for Local Government, consists of five members, of whom one is full-time Chairman and one is full-time Vice-Chairman. The main function of the Commission is the generation and transmission of electricity, which it sells in bulk to distributing authorities (mainly local government bodies) throughout a large part of the State, to the Government railways, and to certain large industrial consumers. As the major generating authority, it is also responsible for the development of new power sources except in the Snowy Mountains region.

The retail sale of electricity to the public is, in general, carried out by separate electricity supply authorities—municipal and shire councils, electricity county councils (consisting of groups of shire and/or municipal councils), or private franchise holders. At 30 June 1965 there were fifty supply authorities throughout the State, of which thirteen also generated part or all of their power requirements. Most of the small power stations which had operated in many country centres have closed down as the main transmission network has been extended.

Over recent years there has been a distinct trend towards the consolidation of supply areas on a district basis for electricity distribution purposes. Generally, these consolidations have taken the form of a county district consisting of a number of neighbouring shire and municipal and city areas grouped only for electricity supply purposes, and administered by a county council of representatives elected by the constituent councils. Of the 224 cities, municipalities and shires in New South Wales, 214 are included in one or other of the thirty-four electricity county districts. The majority of these county districts have been constituted since 1945. The largest of the county councils is the Sydney County Council, which at 30 June 1965 was supplying 530,219 consumers in the Sydney metropolitan area.

Electricity Authority of New South Wales

The Electricity Authority was constituted for the purpose of promoting and regulating the co-ordination, development, expansion, extension and improvement of electricity supply throughout the State. A regulatory body, it consists of seven members of whom one is a full-time Chairman. Like the Electricity Commission, it is responsible to the Minister for Local Government. The following are the main functions of the Authority.

Distribution. The approval of the Authority is required for the establishment or acquisition of an electricity trading undertaking by a local government council, for the granting or renewing by such a council of electricity franchise agreements or corresponding agreements with other councils, and for the giving or taking of bulk supplies of electricity. It also has power to formulate proposals for the establishment of county councils. In exercising these powers, the Authority is concerned mainly with seeing that distributing authorities are sufficiently strong to provide an economical, efficient and satisfactory service. Its most important activities in this regard are in investigating supply areas and in making recommendations to the Minister for the consolidation of such areas into county districts.

Rural electrification. The Authority administers the rural electricity subsidy scheme under which rural electrification throughout the State is progressing very rapidly (see pp. 148-9).

Safety. The Electricity Development Act, 1945-1964 contains provisions for the making of regulations relating to most aspects of safety, and these powers are being used more and more extensively. Safety regulations now in force cover such matters as inspection of consumers' installations, licensing of electricians and electrical contractors, approval of electrical appliances, safety of linesmen and overhead line construction.

Generation and transmission. The approval of the Authority is required for the establishment or extension of power stations and main transmission lines (with the exception of those of the Electricity Commission).

Generation and transmission

Except in the Snowy Mountains district and in one or two other areas New South Wales is lacking in major water power potential, and for the generation of electricity the State is dependent mainly on steam power stations. During the year ended 30 June 1965, coal-fired power stations generated 82.8 per cent of the State's energy requirements, hydro-electric stations 16.7 per cent and internal combustion plants 0.5 per cent. Of the 16.7 per cent generated from hydro-electric stations, approximately 70 per cent was from the Snowy Mountains Scheme. This proportion will increase with the expansion of that scheme, but it is not expected that more than 15 per cent to 20 per cent of the State's power needs will be supplied from this source. The coal-fired steam power stations (and possibly atomic power stations in the future) will therefore continue to supply the greater part of requirements.

Major generating stations. In New South Wales the generation of electricity has followed the general world trend towards large centralized power stations supplying large areas through interconnected transmission networks. Whereas until a few years ago the greater part of the coal-fired generating plant was located in the industrial areas of Sydney, Newcastle and Wollongong, where most of the population is also located, major power stations are now being located on the coalfields to the north, south and west of Sydney, and power is transmitted to the load centres through high voltage transmission lines.

At 30 June 1965 the major power stations of the State system of the Electricity Commission of New South Wales and their installed capacities were as follows: *Steam*—Vales Point (Lake Macquarie), 600,000 kW; Bunnerong (Sydney), 375,000 kW; Wangi (Lake Macquarie), 330,000 kW; Tallawarra (Lake Illawarra), 320,000 kW; Wallerawang (near Lithgow), 240,000 kW; Pyrmont (Sydney), 200,000 kW; White Bay (Sydney), 172,000 kW; Balmain (Sydney), 107,000 kW; Port Kembla, 60,500 kW; Zarra Street (Newcastle), 42,500 kW; Muswellbrook, 30,000 kW; Lithgow, 27,000 kW; Tamworth, 27,000 kW; Maitland, 20,000 kW; Penrith, 20,000 kW; Liverpool, 20,000 kW; *Hydro*—Hume—(near Albury), 50,000 kW; Warragamba (near Penrith), 50,000 kW; Burrinjuck (near Yass), 20,000 kW. There were also various other steam, hydro and internal combustion stations aggregating 33,150 kW. The total installed capacity of the Electricity Commission's system was 2,744,150 kW. The greater part of the Commission's generating plant is concentrated within a hundred mile radius of Sydney—the largest stations outside this area being located at Hume, Muswellbrook and Tamworth.

Major transmission network. The retailing of electricity to 97 per cent of the population of New South Wales is in the hands of local distributing authorities, which obtain electricity in bulk from the Commission's major State network. This network of 330 kV, 132 kV, 66 kV and some 33 kV and 22 kV transmission lines links the Commission's power stations with the load centres throughout the eastern portions of the State, extending geographically up to 400 miles inland.

At 30 June 1965 there were in service 859 route miles of 330 kV (including 143 miles operating for the time being at 132 kV) and 2,073 miles of 132 kV transmission lines (including 153 miles operating for the time being at 66 kV or lower). There were also in service 2,445 miles of transmission line of 66 kV and lower voltages. The installed transformer capacity at the Commission's 112 sub-stations was 9,350,300 kVA.

Separate systems and total State installed capacity. A number of small plants which supply isolated towns and villages have not yet been interconnected with the main network. Some local government bodies have undertaken the development of independent power stations. Of these, the more important are:—the Northern Rivers County Council, which has constructed a steam power station at Koolkhan (near Grafton) with an installed capacity of 28,750 kW, and the North-West County Council, which has established a 15,000 kW steam power station on the Ashford coalfield. The aggregate installed capacity for the whole of the New South Wales systems and isolated plants was 2,858,480 kW at 30 June 1965 and the number of ultimate consumers at this date was 1,339,499.

Future development

The major new thermal stations already built and those now being developed on the coalfields will become the main base load centres for the northern, southern and western regions. Wangi, on Lake Macquarie, Wallerawang, near Lithgow, and Tallawarra, on Lake Illawarra, have been completed.

At Vales Point, on Lake Macquarie, work is in progress on a large thermal station with a designed capacity of 875,000 kW. The plant will consist of three 200,000 kW units and one 275,000 kW unit. The three 200,000 kW units have been commissioned. The 275,000 kW unit is programmed for completion in 1966. Construction of the Munmorah Power Station, located between Lakes Munmorah and Budgewoi (on the central coast), has commenced. The plant at Munmorah will comprise four 350,000 kW generating units, the first of which is programmed for commissioning in 1967, and the second, third and fourth units will follow at yearly intervals thereafter.

During the first half of 1965 work commenced on the Liddell Power Station project in the Hunter Valley, between Singleton and Muswellbrook. The designed capacity of Liddell is 2,000,000 kW, consisting of four 500,000 kW generating units and is the biggest thermal power station yet planned in Australia. The first unit is scheduled for commissioning in 1971, and the second, third and fourth units in 1972, 1973 and 1974 respectively. The development of the 330 kV main system is continuing. With duplicate transmission completed over the whole distance from the Snowy Mountains to the northern coalfields, the main work now is the construction of a third circuit between the Vales Point-Munmorah area and Sydney and between the Snowy area and Yass. The latter transmission line is being constructed between Talbingo and Yass (74 miles) and will connect at Talbingo to a new 330 kV line being constructed by the Snowy Mountain Authority between Talbingo and the Authority's Murray switching station transmitting power to the New South Wales net work from the Murray power stations.

The development of the 330 kV network around the Sydney metropolitan area is proceeding. Further progress in the work of bringing additional power into the Sydney metropolitan area from southern and northern power stations was achieved when the new 330 kV transmission centre was commissioned at Sydney West, near Wallgrove, with a transformer capacity of 870 MVA. This major 330 kV substation, the third to be established in the metropolitan area, is linked at 330 kV with Sydney North and Sydney South and also with Dapto in the south. Plans to augment the transmission system during the next five years provide for the construction of 379 route miles of 330 kV lines and three associated substations, over 930 route miles of 132 kV line and eighteen substations, as well as additions to existing substations and a number of lower voltage works.

Hydro-electricity

The greater part of the hydro-electric potential of New South Wales is concentrated in the Snowy Mountains area (*see* Snowy Mountains Hydro-electric Scheme, p. 144). Apart from this area, major hydro-electric stations are in operation at the Warragamba Dam (50,000 kW), Hume Dam (50,000 kW), Burrinjuck Dam (20,000 kW), and Keepit Dam (6,000 kW). The output of Warragamba Power Station depends upon the availability of water surplus to the requirements of the Sydney metropolitan area, and the output of the other stations on the release of water for irrigation. Of the remaining hydro installations, the largest is that of the New England County Council on the Oakey River, a tributary of the Macleay River, which has a capacity of 5,250 kW. The Northern Rivers County Council operates a hydro-electric power station on the Nymboida River, a tributary of the Clarence River. This station has a capacity of 4,500 kW. The Bega Valley County Council has constructed a hydro-electric scheme at Brown Mountain utilizing the headwaters of the Bemboka River. This installation has a capacity of 3,950 kW. The Mullumbimby Municipal Council has in operation two hydro units with an effective rating of 140 kW each, on Wilson's Creek, a tributary of the Richmond River.

Rural electrification

When the Electricity Authority of New South Wales was constituted in 1946 less than one-quarter of New South Wales farms within reasonable reach of public electricity supply systems were being served with electricity. Under a subsidy scheme approved in August 1946, local

electricity suppliers receive subsidies from the Electricity Authority towards the cost of new rural lines. The amount of subsidy is based on the estimated cost of the proposed extension and the number of consumers able to be served by the new lines. The scheme was designed to encourage local electricity supply authorities to construct the more economic extensions first by fixing a limit to the cost for which suppliers could be subsidized. Originally this limit was £250 (\$500) per consumer when averaged over the cost of the whole extension, but the limit was raised to £400 (\$800) in December 1953. Some subsidy was paid on higher cost extensions, but the excess over an average of £400 (\$800) was not subsidized.

To assist supply authorities in extending supply to less populated, and thus high-cost, areas of the State the subsidy scheme was extended from May 1959 to provide for payment of increased subsidy in respect of extensions where the average capital cost per consumer lies within the range of £600-£800 (\$1,200-\$1,600).

Between August 1946 and June 1965, applications for subsidy had been made by electricity suppliers to the Authority covering rural extensions costing \$75 million to give supply to some 57,250 farming properties and 34,700 other rural consumers and involving 54,300 miles of line. The greater part of this work had been completed at 30 June 1965. At this date the Authority was committed to the payment of \$30,924,486 in subsidies, of which \$16,455,470 had been paid.

Victoria

In Year Book No. 39 a detailed description is given of the development of electricity generation in the cities of Melbourne, Geelong, Bendigo and Ballarat up to the time of transfer of control of electricity undertakings in those cities to the State Electricity Commission of Victoria. An account is also given of the events culminating in the establishment of the Commission in 1919, and of the early developments in the Commission's undertakings.

Constituted by the *Electricity Commissioners Act* 1918, the State Electricity Commission is a semi-governmental authority administered since 1921 by a full-time Chairman and three part-time Commissioners. The principal duty of the Commission is to co-ordinate and extend on an economic basis the supply of electricity throughout Victoria. For this purpose it is vested with power to erect, own, and operate power stations and other electrical plant and installations, supply electricity retail to individual consumers or in bulk to any corporation or public institution, acquire and operate electricity undertakings, develop, own, and operate brown coal open cuts and briquetting works, and develop the State's hydro-electric resources. From its own revenues, which it controls, the Commission must meet all expenditure in the operation of its power, fuel and subsidiary undertakings, and all interest and other charges incurred in the service of its loans and other capital commitments.

The Commission is the controlling authority for all electrical undertakings in Victoria. It is responsible for the registration of electrical contractors, the licensing of electrical mechanics, the control of installation methods and material, and the testing and approval of electrical equipment and appliances. Incidental to its main operations, the Commission owns and operates the tramway systems in Ballarat and Bendigo. For the accommodation of its employees at Yallourn, the Commission owns and administers the town of Yallourn. It also owns large housing estates in the surrounding area, but is progressively selling houses in these estates to Commission employees. In the Kiewa hydro-electric works area it has built the two townships of Mount Beauty and Bogong, municipal administration of the former now being vested in the Shire of Bright. With construction at Kiewa now complete, many houses at Mount Beauty have been sold for holiday homes.

State Electricity Commission of Victoria

Since it began operating in 1919 the State Electricity Commission has expanded and co-ordinated the production and supply of electricity on a State-wide basis to the point where its system now generates almost all the electricity produced in Victoria and serves nearly 98 per cent of the population. Development of Victoria's electricity system is based on the utilization for both power and fuel of Victoria's extensive brown coal resources in the Latrobe Valley in eastern Gippsland, with supplementary development of the hydro-electric potential of north-eastern Victoria. Victoria is entitled to one-third of the electricity from the Snowy Mountains Hydro-electric Scheme, after the Commonwealth has taken the power it needs for its purposes. Victoria also shares with New South Wales in the electricity generated at Hume Hydro Station on the River Murray. About 75 per cent of the State's electricity is generated from brown coal, either used in its raw state or manufactured into higher quality fuel in the form of brown coal briquettes. All the brown coal and briquette fuel is supplied by undertakings which the Commission itself owns and operates. Output of brown coal in 1964-65 from the three open cuts at Yallourn, Yallourn North and Morwell totalled 19,001,796 tons, of which 13,322,670 tons were used in the Commission's own power stations, and 5,250,518 tons were manufactured into 1,892,759 tons of brown coal briquettes, 33 per cent of the briquette output then being used for electricity production.

in metropolitan and provincial steam power stations. The two functions, generation of electricity and production of fuel, are closely integrated. Apart from the large proportion of brown coal and briquette fuel consumed in the power stations, the process of briquette manufacture results also in the generation of electricity, since the steam needed for processing the raw coal for briquetting is first used to operate turbo-generators.

Electricity supply

At 30 June 1965 the number of ultimate consumers in Victoria was 1,057,314. Of these, 1,048,554 were served by the State system and 8,760 by local country undertakings. The State system supplies all the Melbourne metropolitan area and over 2,000 other centres of population.

Complete electrification of the State is now within sight. By 30 June 1965 about 890,000 of the 917,000 homes in the State and 61,200 of Victoria's 72,000 farms were supplied with electricity. By 1970-71, allowing for extensions then in progress, only about 6,000 homes and fewer than 1,250 farms in remote areas will be out of reach of public electricity supply, but efforts will be continued to supply as many of these as possible.

The Commission sells electricity retail in all areas except part of the metropolitan area, where it sells in bulk to eleven municipal undertakings which operate as local retail supply authorities under franchises granted before the Commission was established. Bulk supply is also being provided at present to several New South Wales municipalities and irrigation settlements bordering the River Murray. The number of consumers served by the State system outside the Melbourne metropolitan area is 481,616. Of the new consumers connected to supply each year, more than two-thirds are outside the metropolitan area. New farm connections average over 3,000 a year.

The Commission's retail consumers numbered 842,168 at 30 June 1965. Retail supply is administered through the metropolitan branch and ten extra-metropolitan branches (Ballarat, Eastern Metropolitan, Geelong, Gippsland, Midland, Mildura, Northern, North-Eastern, South-Western and Wimmera). At 30 June 1965 there were branch and district supply offices in Melbourne and 90 other cities and towns in Victoria.

Electricity production, transmission and distribution

Electricity generated in the State system or purchased by it totalled 9.636 million kWh in 1964-65, or more than 99 per cent of all Victoria's electricity for public supply. The system comprises a series of thermal and hydro-electric power stations. Inclusive of generator capacity both within the State and available to the Victorian system from outside the State, the total installed generator capacity at 30 June 1965 was 2,288,000 kW. Power stations are interconnected and feed electricity into a common pool for general supply. The major power station in this interconnected system is the brown coal burning power station at Yallourn, which alone generates nearly half of Victoria's electricity. Other power stations in the interconnected system comprise two further base load brown coal burning power stations, Morwell and Hazelwood (which has two of its planned eight 200,000 kW generating sets in service); steam stations in Melbourne (Newport, Richmond and Spencer Street), Geelong and Ballarat, and also at Red Cliffs, which has, in addition, some internal combustion plant; hydro-electric stations at Kiewa, at Eildon, on the Rubicon and Royston Rivers near Eildon, and at Cairn Curran; and an internal combustion station at Warrnambool. All within Victoria are Commission-owned, except Spencer Street Power Station, which remains the property of the Melbourne City Council, although operated as a unit in the interconnected system. A 330 kV transmission line links the Victorian system with the Snowy Mountains undertaking, and also provides facilities for interconnection between the Victorian and New South Wales State generating systems. Also linked with the Victorian interconnected system is the hydro station at Hume Dam on the River Murray. This power station is operated by the Electricity Commission of New South Wales. Output and operating costs are shared by Victoria and New South Wales. In meeting the total demand on the system, which fluctuates throughout the day and from month to month, each group of stations in the interconnected system is assigned a predetermined function dependent upon the availability of power from each group and the economics of generation. The various stations are utilized in the combination that will meet the system load most economically at a given time.

The electrical transmission and distribution system in the State supply network at 30 June 1965 comprised 46,011 miles of power-lines, 19 terminal receiving stations, 94 main transmission sub-stations, and over 42,000 distribution sub-stations. Main transmission is by 330 kV, 220 kV, 132 kV and 66 kV power lines which supply the principal distribution centres and also provide interconnection between the power stations. The 330 kV and 220 kV systems total 1,154 miles.

Future development

Major new construction is concentrated on the erection on the brown coal fields of the Latrobe Valley, of a large new brown coal burning power station (Hazelwood), which is designed to operate on raw brown coal fuel supplied by belt conveyor direct from the Morwell open cut. Hazelwood Power Station is the largest project yet undertaken by the Commission and is designed

to have a capacity of 1,600,000 kW in 1971. By that year the State's power resources, including Victoria's share of the output of the Snowy scheme, will have increased by 81 per cent to 3,616,000 kW. The first of Hazelwood's eight 200,000 kW turbo-generators was commissioned in October 1964. A second generating set of the same capacity went into service in 1965, and six other 200,000 kW sets will follow at yearly intervals. Power generated at Hazelwood Power Station is transmitted at high voltage to Melbourne metropolitan terminal stations for distribution through the State supply network.

Local country electricity undertakings

At 30 June 1965 there were eleven independent electricity undertakings in country centres in Victoria generating and distributing their own local supply. All except three of these undertakings were in the west and north-west of the State. Under the State Electricity Commission's rural electrification programme almost all the independent local country undertakings will ultimately be acquired and absorbed into the State system. For the year 1964-65 the total production of the independent undertakings was 32 million kWh. The number of consumers at 30 June 1965 was 8,760. With the exception of the Wonthaggi undertaking (which is operated by the State Coal Mine), the operation of the independent undertakings is governed by the *Electric Light and Power Act 1958*, which is administered by the State Electricity Commission.

Queensland

In Year Book No. 39 an account is given of the growth of electricity generation in Queensland, with particular reference to south-eastern Queensland, and of the events leading up to the establishment in 1937 of the State Electricity Commission of Queensland.

Electricity supply in Queensland is governed by the following Acts which are administered by the Commission:

'*The State Electricity Commission Acts, 1937 to 1965.*' These Acts constituted the Commission and define its powers, duties and responsibilities.

'*The Electric Light and Power Acts, 1896 to 1965.*' These Acts relate to the constitution of electric authorities, and define their powers, duties and responsibilities, and the conditions under which electricity is to be supplied and used, and also provide for the making of regulations governing safety and other matters.

'*The Regional Electric Authorities Acts, 1945 to 1964.*' These Acts provide for the constitution of Regional Electricity Boards representative of the Commission and the Local Authorities within each region, and define their powers and responsibilities.

'*The Southern Electric Authority of Queensland Acts, 1952 to 1964.*' These Acts established the Southern Electric Authority as a public authority and successor to the City Electric Light Co. Ltd., and define the powers and responsibilities of the Authority.

'*The Northern Electric Authority Acts, 1963 to 1964.*' These Acts established the Northern Electric Authority with responsibility for the generation and main transmission of electricity in north Queensland and for its sale in bulk to regional distributing authorities. They also define its powers and responsibilities.

'*The Electrical Workers and Contractors Acts, 1962 to 1964.*' These Acts deal with the execution of electrical works, the competency of electrical workers, and the licensing of electrical contractors.

State Electricity Commission of Queensland

The Commission commenced to function in January 1938. Generally, the Commission is the statutory authority concerned, *inter alia*, with the administration of electricity supply legislation, the general control, organization and efficient development of the electricity supply industry in Queensland, the forward planning of such development, the control of electricity charges, the administration of regulations and rules relating to safety, the raising of capital, the provision of engineering and consulting services, the promotion of the use of electricity, particularly in manufacturing and rural industries, and the fixing of standards. In addition, it is an authority to which consumers may appeal on matters in dispute between them and their electric authorities. The Commission is also empowered to own directly and operate generating stations and transmission lines and to sell electricity in bulk, but up to the present it has not been found necessary or desirable to implement this power.

Development and organization

Following the 1939-1945 War, regional systems of electricity supply were established in and adjacent to the eastern coastal area, which is over 1,300 miles long. Five Regional Electricity Boards were established to replace the numerous individual electricity undertakings which had supplied only the larger centres of population. Under this system supply was delivered from

central generating stations at or near the principal load centres. Each region comprised a homogeneous area, possessing relatively common interests, within which integrated transmission and distribution systems were established. Transmitted supply was taken to load centres previously served by relatively costly local generating stations and a vigorous policy of rural electrification was pursued. In south-eastern Queensland regional electrification was undertaken by the Southern Electric Authority and the Dalby Town Council. The Brisbane City Council supplies the metropolitan area.

In the pastoral areas west of the Great Dividing Range supply had been provided by means of small diesel-operated generating stations run by local authorities. These independent units are fairly uniformly scattered throughout western Queensland and no town or village with more than fifty potential consumers is without electricity. With increasing consumption there has been a trend in this area for local generating stations to be superseded by transmitted supply from larger centres. From such transmission lines it has been possible to provide electricity to many otherwise isolated rural properties.

Continued load growth led naturally to the interconnection of regional systems and by this means the production of electricity was concentrated on the cheapest sources of power. The three northern Regional Electricity Boards (Cairns, Townsville and Mackay) were consolidated into one interconnected grid. In the south, the supply systems of the Southern Electric Authority, the Brisbane City Council, the Wide Bay-Burnett Regional Electricity Board and the Dalby Town Council also form an interconnected grid. The central Queensland network, which is operated by the Capricornia Regional Electricity Board, is not yet connected with either the northern or southern grids.

The natural sequel to the interconnection of regional supply systems has been the severance of the production and distribution functions. For the northern grid, the Northern Electric Authority is responsible for the operation of generation and main transmission facilities, with the Cairns, Townsville and Mackay Regional Electricity Boards buying in bulk and acting as distributing authorities. In the south, the Southern Electric Authority is responsible for generation and transmission, with the other authorities purchasing in bulk and performing the distribution function. However, the Southern Electric Authority also distributes over a large rural area surrounding Brisbane, and the Wide Bay-Burnett Board generates on a small scale. The Capricornia, Townsville and Cairns Boards operate a number of small isolated diesel generating stations.

All electricity undertakings in Queensland are now publicly owned, and with the exception of the Southern Electric Authority are controlled by representatives of local authorities within the areas concerned. Further interconnections and amalgamations within the electricity supply industry will be effected as soon as they will produce greater efficiency and lower costs to consumers. A major co-ordinating factor has been the inclusion of the Commissioner for Electricity Supply on the Boards of the Southern Electric Authority, the Northern Electric Authority and the five Regional Electricity Boards since their inception.

Electricity generation, transmission and distribution

Electricity generated in the State is based primarily on black coal, 83.3 per cent of the total production during 1964-65 being derived from this fuel. Hydro-electric stations, located mainly in north Queensland, provided 15.1 per cent, and the balance of the production, 1.6 per cent, was from internal combustion plants located mainly in western Queensland, utilizing oil, wood, coal or natural gas as fuel. Natural gas is the principal fuel used at the Roma power station. Electricity generated in Queensland in power stations in 1964-65 totalled 3,518 million kWh. At 30 June 1965, the major power stations within the State were as follows:—*Steam*—Bulimba A (Brisbane), 92,500 kW; Bulimba B (Brisbane), 180,000 kW; New Farm (Brisbane), 75,000 kW; Tennyson A (Brisbane), 120,000 kW; Tennyson B (Brisbane), 120,000 kW; Howard (near Maryborough), 37,500 kW; Rockhampton, 52,500 kW; Callide, 30,000 kW; Mackay, 12,250 kW; Townsville, 37,500 kW; *Hydro*—Kareeya (Tully Falls), 72,000 kW; Barron Gorge (near Cairns), 60,000 kW. The Mackay station also contains 3,000 kW of internal combustion plant. The Southern Electric Authority also operates two packaged plants each of 10,000 kW capacity. The total installed capacity of all Queensland generating stations was 995,975 kW, which comprised 833,750 kW of steam plant, 135,205 kW of hydro-electric plant and 27,020 kW of internal combustion plant.

The electrical transmission and distribution systems within the State comprised 34,180 circuit miles of electric lines at 30 June 1965. The main transmission voltages are 132 kV, 110 kV, 66 kV and in certain areas 33 kV. Extensive rural electrification has been undertaken by means of the single wire earth return system. At 30 June 1965 the total number of electricity consumers was 476,000, of whom 191,691 were in metropolitan Brisbane. The total number of farming properties supplied with electricity was 25,876.

Future development

Major new construction is concentrated on the development of three new power stations sited on coalfields. These are at Swanbank (396,000 kW) on the West Moreton coalfield near Ipswich, Callide (120,000 kW) on the Callide open-cut coalfield near Biloela, and at Collinsville

(180,000 kW) on the Collinsville coalfield. These stations will supply the southern, central and northern network, respectively. Cooling water for the Callide station will be provided from a multipurpose dam on Callide Creek which will also satisfy irrigation needs. A similar multipurpose dam on the Broken River will serve the Collinsville station. The water requirements of the Swanbank power station will be supplied from the Moogerah Dam. The Swanbank station will consist of six 66,000 kW generating sets, the first of which will be commissioned in 1966, two more in 1967 and one in 1968 and 1969. The first stage of the Callide station consists of two 30,000 kW sets, the first of which was commissioned in June 1965. The second and third sets are scheduled for commissioning in 1966 and 1967 respectively. At Collinsville the first stage of two 30,000 kW sets is planned for commissioning in 1968. In November 1965 Government approval was secured for the construction of a second thermal power station at Swanbank. This station has a planned capacity of 480,000 kW, and one 100,000 kW generating set will be commissioned annually from 1970 to 1973. In North Queensland, developments being considered include the further expansion of thermal generation at Collinsville and the further utilization of the area's hydro-electric potential.

The electrical development in the west of Queensland is being assisted by the progressive extension westwards of the boundaries of the major regional electricity undertakings to include smaller western undertakings, bringing with it the advantages of incorporation within larger authorities, lower tariffs and greater financial and technical resources. Organizational changes involving amalgamation of isolated undertakings and their interconnection by transmission lines are being implemented as and when economic benefits to the consumers will result. In the extreme far west the isolated undertakings must inevitably continue to remain as such for the foreseeable future. New measures now proposed include the further westward extension of the areas of supply of the Townsville and Capricornia Regional Electricity Boards, and the establishment of a small electricity supply region to cater for the development of the central Western area of the State based upon Longreach and Barcaldine.

South Australia

An account of the companies generating electric power in South Australia prior to the establishment of the Adelaide Electric Supply Co. Ltd., and describing the development of that company's activities, was given in Year Book No. 39. Also included in the account was some reference to the early measures of public control over electricity supply in South Australia and the extent to which they were applied, and also to the inquiries into the activities of the Adelaide Electric Supply Co. Ltd., in 1932 and 1935. Following an inquiry instituted by the Government in 1943, relative to measures for increasing electricity supply to the metropolitan area and country districts, the Electricity Act, 1943 was passed, which, *inter alia*, established the South Australian Electricity Commission.

Electricity Trust of South Australia

In 1946 the assets of the Adelaide Electric Supply Co. Ltd. were transferred to a newly formed public authority, the Electricity Trust of South Australia, which became responsible for unification and co-ordination of the major portion of the State's electricity supply and which took over the powers previously vested in the South Australian Electricity Commission. In addition to the powers specified in the Adelaide Electric Supply Company's Acts, 1897-1931, the Trust may supply electricity direct to consumers within a district or municipality with the approval of the local authority, and by agreement with other organizations which generate or supply electricity, arrange to inter-connect the mains of the Trust with those of other organizations, and give or receive supplies of electricity in bulk.

Capacity and production

Three main categories of organizations generate electric power in South Australia, namely: (a) governmental, which include the Electricity Trust; (b) local authorities, e.g. municipal and district councils, and the Renmark Irrigation Trust; and (c) other, including individuals and firms engaged primarily in generating power for sale, firms generating power primarily for their own use but supplying outside consumers, and firms generating power solely for their own use.

Of the total installed capacity in South Australia at 30 June 1965, the Electricity Trust operated plant with a capacity of 666,000 kW, and is the most important authority supplying electricity in the State. There were approximately 368,000 ultimate consumers of electricity in the State, of whom 349,600 were supplied directly and approximately 11,000 indirectly (i.e. through bulk supply) by the Trust. Its major steam stations are Osborne 'A' (60,000 kW), Osborne 'B' (240,000 kW), and Port Augusta Playford 'A' (90,000 kW) and Playford 'B' (240,000 kW), the balance of the capacity controlled consisting of house sets and regional stations at Port Lincoln and Mount Gambier, where the Trust operates steam power stations of 5,000 kW and 21,800 kW capacity respectively, the former burning fuel oil and the latter either wood waste or fuel oil. Mt. Gambier is connected with the Metropolitan system by a 132 kV line. No hydro-electric potential exists in South Australia. Steam generating units comprise 98 per cent of installed capacity and the balance is internal combustion equipment.

Leigh Creek and other new capacity

Fairly extensive deposits of low grade sub-bituminous coal are obtainable at Leigh Creek, about 360 miles north of Adelaide. Under the Electricity Trust of South Australia Act, 1946, the Trust was given authority to develop Leigh Creek coal for use in its own undertakings and also for sale to other consumers. Production from the Leigh Creek field commenced in 1944, and in the year ended 30 June 1965, 1,919,483 tons of coal were produced, practically all of which was used by the electricity undertaking at the Port Augusta Playford Power Stations which use Leigh Creek coal exclusively.

A large power station is to be constructed on Torrens Island near Adelaide and four 120,000kW turbo-alternators and associated oil fired boilers have been ordered, the first to be commissioned early in 1967.

Western Australia

Since 1952 the State Electricity Commission of Western Australia has generated and distributed all electric current in the Perth metropolitan area, including Fremantle. Previously the Fremantle Municipal Tramways and Electric Lighting Board and other metropolitan municipal and road board supply authorities had purchased current in bulk from the Commission for distribution through their own system. For information on the early history of electricity supply in the metropolitan area, see Year Book No. 39, page 1189.

State Electricity Commission of Western Australia

The State Electricity Commission of Western Australia was established by the *State Electricity Commission Act, 1945*, and, as at present constituted, consists of nine members, including the Chairman, appointed by the Governor. Four of the Commissioners are representatives of consumers, one for the metropolitan area, two for the rest of the State and one representing commercial consumers. Of the remaining five, one is the Under Treasurer of the State or his deputy, one represents employees of the Commission and three are required to be qualified engineers.

The Commission is empowered to co-ordinate all State and other power undertakings in the State; to encourage and promote the use of electricity and other power, especially for industrial, manufacturing and rural purposes; and to carry out investigations to determine the safest, most economical and effective means for promoting, establishing, extending and improving works for the generation, transmission, distribution, supply and use of electricity or other power throughout the State. No person or organization is permitted to construct or extend an electricity supply undertaking without consent from the Commission. Local authorities are empowered to operate and construct power stations and other works associated with the supply of electricity, provided that authority is first obtained from the Commission and that their proposals are not inconsistent with the Commission's plans.

General pattern of electricity supply

The State Electricity Commission gives central power station supply to the metropolitan area and an area of approximately 25,000 square miles defined in the report which formed a basis for the *South West State Power Scheme Act, 1945*, and an area extending eastward from Perth to Merredin. These areas include the more highly developed rural districts with a greater population density, which can more readily be connected to a central power station system. The policy of extending power supplies to rural consumers is continuing and at 30 September 1965 some 5,673 rural consumers were connected. A similar scheme known as the Northern Areas State Power Scheme will be developed and a depot has been established in the Geraldton area. The Commission purchases power in bulk from the Geraldton Town Council to supply surrounding districts as far north as Northampton.

In the other areas of the State, towns are supplied by the local authority or by a concessionaire operating under an agreement with the local authority and the Commission. Power stations operated under these conditions are exclusively diesel of varying sizes. The number of consumers at 30 June 1965 was 189,844.

At the request of the Government, the Electricity Advisory Committee, in 1945, submitted a report which recommended, among other things, a national power scheme for the south-west. The plan provided for acquisition of the existing Collie Power Station and installation of additional generating capacity, construction of a power station at Bunbury and inter-connection of the south-west scheme with the metropolitan system. In 1946 the State Electricity Commission acquired the Collie Power Station, and since then it has acquired a number of electrical undertakings from municipal bodies and private organizations in the south-west area and is proceeding with arrangements for the purchase of others. In August 1951 the first portion of the South-West Power

Scheme was officially opened at Collie, and most of the south-west towns as well as towns in the eastern wheat belt area as far east as Merredin have now been connected by transmission line to the interconnected system. Statistics relating to activities of the interconnected system for the years 1963-64 and 1964-65 are shown in the following table.

	1963-64	1964-65
Plant capacity kW	289,500	349,500
Maximum load kW	263,000	320,000
Units generated million kWh	1,094	1,215
Fuel used per unit (kWh) generated . . . lb.	1.49	1.47
Coal used tons	617,150	686,928

In Kalgoorlie the large gold mines generate their own power requirements. The Power Corporation has ceased operations, and the Kalgoorlie Town Council operates a new 50 cycle diesel station to supply A.C. consumers in Kalgoorlie and Boulder. The D.C. stations of the Kalgoorlie and Boulder Town Council will continue to operate for some time at least.

New projects

Since its inception in 1946 the State Electricity Commission has made the provision of an adequate reserve of generating plant its primary object. With the commissioning of the first unit at South Fremantle Power Station in May 1951, the lag caused by shortages during the war and early post-war years was overcome. The system then developed rapidly to keep pace with the expansion of industry and housing. Generating plant has increased five-fold in the past eighteen years. The three major power stations have been interconnected with the South West Power Station at Collie enabling the most economical units to be used as a base load station. Continuous development of the transmission and distribution system is being undertaken to keep pace with the growth in consumer demand which is being maintained at a high level.

The first of the four turbo alternators to be installed at Muja Power Station (near Collie) was commissioned on 10 July 1965, and work on the other units is proceeding to schedule. One of these will be ready for service in September 1966, another in 1967 and the fourth in 1968. Tenders have also been called for two 120,000 kW oil fired units for a new station to be built at Kwinana. It is expected that these units will be commissioned in 1970 and 1971.

Tasmania

A considerable part of the water catchment in Tasmania is at high level, with a substantial natural storage available, and this has made it possible to produce energy at lower cost than elsewhere in Australia, or in most other countries. Another factor contributing to the low cost is that rainfall is distributed fairly evenly throughout the year with comparatively small yearly variations. The abundant and comparatively cheap supplies of electricity and other natural resources have attracted to Tasmania a number of important secondary industries, including large electro-chemical and metallurgical works with high load factor (in consequence of which the system load factor is also very high—72 per cent), for which energy costs constitute a large proportion of the total cost of production. The continuous power demands of these organizations when plant is in full operation aggregates 278,000 kW. For information on hydro-electric development in Tasmania prior to the establishment of the Hydro-Electric Commission in 1930, see Year Book No. 39, pages 1192-3.

Hydro-Electric Commission

In 1929 the Government passed the *Hydro-Electric Commission Act* 1929, which established the Hydro-Electric Commission and vests in the Commission, with some minor exceptions, the right to use the waters of the State of Tasmania, and authorizes it to develop and reticulate electric power for all purposes. In 1930 this corporate body took over the State hydro-electric undertaking and the business of the Hydro-Electric Department. For details of projects undertaken by the Commission prior to 1957 see Year Book No. 48, pp. 243-4, and earlier issues. Particulars of the Catagunya Power Development Scheme, begun in 1957 and completed in 1962, are contained in subsequent issues up to No. 51.

In the Great Lake Power Development the water of the Great Lake, by its diversion to the north-east in the direction of the most precipitous fall, is used to much greater advantage than previously through Shannon and Waddamana. Eventually reaching the South Esk River, it is used again through the machines of the Trevallyn Power Station. The works consist of an intake at the Great Lake, a four-mile headrace tunnel through the Western Tiers, one mile of high pressure pipeline on the face of the Tiers, a vertical shaft leading to the Poatina Power Station some 500 feet underground, a two-mile tailrace tunnel discharging into a canal, and then a

channel to the Lake River, a tributary of the South Esk. In this development the power is generated by the fall of water through a vertical distance of 2,730 feet to the underground Poatina Power Station. Three 50,000 kW generators were in operation by mid-1964, a fourth in September, 1964, and a fifth in February 1965. A sixth generator, to be installed at a later date, will bring the station's installed capacity to 300,000 kW. A further section of the scheme, now nearing completion, includes a dam at Arthur Lakes from which water will be pumped via conduit into the Great Lake, thus increasing the storage for use through the Poatina Power Station. With the commissioning of Poatina Power Station, Shannon Power Station was taken out of service in June 1964, and the original Waddamana 'A' Power Station was taken out of service in June 1965. Waddamana 'B' Station is being retained to provide peak load capacity and spare plant.

The total installed capacity of alternators in the various power stations throughout Tasmania in June 1965 was as follows:

	kW
Waddamana 'B'	48,000
Tarraleah	90,000
Butler's Gorge	12,200
Trevallyn	80,000
Tungatinah	125,000
Lake Echo	32,400
Liapootah	83,700
Wayatinah	38,250
Catagunya	48,000
Poatina	250,000
Total	807,550
King Island (diesel plant)	390

Approved construction will bring this total to approximately 1,240,000 kW by 1974. The number of ultimate consumers at 30 June 1965 was 131,593.

New capacity

The Hydro-Electric Commission is engaged on a construction programme which comprises the Lower Derwent Power Development and the Mersey-Forth Power Development. In the first-named a three-stage development is under construction below Catagunya on the River Derwent. With dams and associated power stations Repulse, Cluny and Meadowbank, completion of this project by 1967 will add a further 85,000 kW to the system, and it will also bring to an end the exploitation of the power potential of the River Derwent and its tributaries.

The Mersey-Forth Power Development is also under construction and is scheduled to be completed by 1974. In this development the Mersey River will be diverted westward to the Forth River by the construction of the Parangana Dam about half a mile below the junction of the Mersey and Fisher Rivers. Thence the flow will be conducted by a tunnel and penstock to Lemon-thyme Power Station on the Forth River. The combined flow will be used for power generation at three power stations on the Forth River, situated at the foot of dams at Cethana, Devil's Gate, and Palooa. The Wilmot River will be diverted to the east by a dam through a tunnel to a power station on the Forth River upstream from Cethana Dam. The diverted flow of the Wilmot River will also be used to produce power at Cethana, Devil's Gate, and Palooa. A sixth power station will result from the development of the Fisher River, where a rapid fall from Lake Mackenzie on the plateau to the Mersey River enables a head of some 2,100 feet to be exploited. The principal storage in the development, Lake Rowallan, will be situated on the upper Mersey River at Walters Marsh, and Rowallan Power Station will exploit the water released from this storage. Smaller storages will be provided by Lake Mackenzie and by Parangana, Wilmot, Cethana and Devil's Gate Dams. The six stages of the development are to be completed progressively between 1969 and 1974 and will add a total of 298,500 kW to the system.

The Commission is conducting extensive surveys and investigation of other schemes with a view to further construction after the completion of the present programme. Investigations are continuing into the very considerable resources as yet untouched, principally in the west and north-west of the State, and it is estimated that the potential which can be developed economically should ultimately harness 2,400,000 kW to the system.

Statistical Summary

The following table shows statistics for each State separately and for the six States combined for the year 1963-64. Statistics of the electricity supply industry for the years 1959-60 to 1963-64 are given in the chapter Manufacturing Industry. Particulars of the Snowy Mountains scheme are included under New South Wales in the following table.

CENTRAL ELECTRIC STATIONS, STATES, 1963-64

Particulars	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
Generating stations—							
Government . . . no.	26	11	..	10	13	12	72
Local authority . . . "	10	8	51	8	38	..	115
Companies . . . "	14	10	1	11	43	3	82
<i>Total stations</i> . . .	<i>50</i>	<i>29</i>	<i>52</i>	<i>29</i>	<i>94</i>	<i>15</i>	<i>269</i>
Installed capacity of generators—							
Steam . . . '000 kW	2,615	1,303	834	657	300	..	5,709
Hydro . . . "	809	333	139	..	2	767	2,050
Internal combustion . . . "	71	26	34	12	80	1	224
<i>Total capacity</i> . . .	<i>3,495</i>	<i>1,661</i>	<i>1,008</i>	<i>669</i>	<i>382</i>	<i>768</i>	<i>7,983</i>
Persons employed(b) . . . no.	4,230	3,356	1,682	1,542	(a)	(a)	12,162
Value of output(c) . . . \$'000	128,051	71,095	37,851	21,697	(a)	(a)	291,220
Value of production(d) . . . "	54,774	44,905	18,888	12,452	(a)	(a)	194,020
Electricity generated(e) . . . million kWh	13,859	7,888	3,493	2,547	1,318	3,414	32,519
Ultimate consumers(f) . . . no.	1,295,353	1,017,355	457,600	352,000	182,094	128,642	3,433,044

(a) Not available for publication; included in the total for Australia. (b) Average employment in generating station, over whole year, including working proprietors. (c) Value, at generating station, of electricity produced plus certain earnings. (d) Value added in the process of generation. (e) Total generated including that generated by factories for their own use. (f) Approximate figures supplied by the electricity authority in each State. An 'ultimate consumer' is a person, business, undertaking, etc., that has contracted to receive electric power from a public or private organization supplying this service. The number of ultimate consumers is not identical with the number of persons served with electricity because one ultimate consumer may represent three or four persons, e.g. in a household.

Commonwealth Territories

The electricity supply undertakings at Canberra in the Australian Capital Territory and at Darwin, Katherine, Tennant Creek and Alice Springs in the Northern Territory are operated by the Commonwealth Government.

Australian Capital Territory

The supply authority is the A.C.T. Electricity Authority, which took over the functions of the Canberra Electric Supply Branch, Department of the Interior, on 1 July 1963. Supply was first made available in Canberra during 1915 and was met from local steam plant. Connection to the New South Wales interconnected system was effected in 1929, and all requirements are now taken from this system. Locally owned plant consists of 4,000 kW of diesel alternators which are retained as a standby for essential supplies. The total number of ultimate consumers at 30 June 1965 was 25,090. During the year 1964-65 the bulk electricity purchased was 287,347,316 kWh and the system maximum demand was 77,900 kW.

Northern Territory

At Darwin, supply was established by the Town Council in October 1934, but during April 1937 responsibility for generation and supply was transferred to the Northern Territory Administration. The power station is now equipped with turbo alternators with a total capacity of 15,000 kW. Tenders were let during 1964 and 1965 for two additional 1,500 kW turbo alternators and boilers for installation at Stokes Hill, Darwin, power station. In addition, diesel generating plant of approximately 6,500 kW is available. A 66 kV transmission system is used. At Alice Springs the power station is equipped with a diesel generating plant of 3,600 kW capacity. Additional plant of 2,000 kW capacity is installed and a contract for another 2,000 kW set will be let early in 1966. At Katherine the power station is equipped with a diesel generating plant of 960 kW capacity with an additional 1,100 kW planned. The total number of ultimate consumers served in the Territory at 30 June 1965 was 6,641.

Papua and New Guinea

Papua and New Guinea Electricity Commission. Responsibility for the operation and establishment of the electrical undertakings in Papua and New Guinea is vested in the Papua and New Guinea Electricity Commission, whose headquarters are located at Port Moresby. The Commission came into operation on 1 July 1963, and assumed the functions and responsibilities previously vested in the Electrical Undertakings Branch of the Department of Public Works. The Commission, on its own behalf, operates the public supplies in the main centres of population and, on behalf of the Administration, operates the supply in the minor centres and patrol posts,

hospitals, agricultural establishments, etc., where the supply cannot be considered to be a fully commercial supply. It has also regulatory functions associated with the licensing of electricians and contractors, the control of franchise holders and the approval of appliances and electrical materials for use in the Territory. The Appliance Approval By-laws will be based upon complete reciprocity with the Australian approval authorities.

The generating capacity in the centres under the control of the Commission is as follows: Port Moresby—*diesel*, 3,720 kW, with an additional 480 kW under construction, *hydro*, 5,500 kW; Rabaul—*diesel*, 3,000 kW; Lae—*diesel*, 2,640 kW; Madang—*diesel*, 1,620 kW; Wewak—*diesel*, 870 kW, with an additional 520 kW under construction; Goroka—*diesel*, 500 kW under construction, *hydro*, 400 kW; Samarai—*diesel*, 300 kW, with an additional 150 kW under construction; Kavieng—*diesel*, 200 kW, with an additional 150 kW under construction; Kokopo—*diesel*, 80 kW. On behalf of the Administration, the Commission operates generating sets totalling some 4,200 kW distributed over 130 centres, with capacities between 5 and 150 kW. The townships of Wau and Bulolo are supplied by power generated by Bulolo Gold Dredging Limited, which operates hydro-electric plant of 5,500 kW capacity. Power produced by this plant is used mainly in the plywood mill and gold dredges at Bulolo. The number of consumers served by the Commission at 30 June 1965 was 9,000. The consumers in minor centres approximated 4,000.

Future development. The Commission has a policy to take increasing advantage of the hydro potential existing in the Territory. Stage 1 of the Sirinomu Dam on the Laloki River near Port Moresby is in operation ensuring a minimum river flow of 200 cusecs. Tenders have been let for the supply of three 6,000 kW generating sets, to be installed in an underground power station, which will take advantage of the fall in the Laloki River over the Rouna Falls. This station will have an ultimate capacity of 30,000 kW. It is planned to commission the station in January 1967.

Preliminary investigations have indicated the economics of developing the potential of the Upper Ramu River adjacent to Kainantu in New Guinea, to provide a regional supply to Lae, Madang, Kainantu, Goroka and Mount Hagen. The present planning is to provide a station designed for ultimate capacity of 48,000 kW, and for the installation of two 8,000 kW generators in the first stage. Some 400 miles of 66 kV and 132 kV transmission line will be constructed to bring power to the centres of consumption.

To meet the growing needs of the Territory, pending the commissioning of the hydro-electric power stations on the Laloki and Upper Ramu Rivers, the Commission is adopting the policy of installing skid-mounted diesel generating sets of a capacity which will permit their transfer at a later date to other growing centres. Trends indicate that a total of five 500 kW sets will be needed at Port Moresby. These will later be transferred to Lae and Madang.

Extensive investigations have been made to locate a suitable source of hydro-electric power to supply the township of Rabaul and the quickly developing area along the Gazelle Peninsula. However, the geological reports on those sites so far investigated have not been encouraging, and at present no firm proposal has been put forward. Several small hydro-electric installations are in service or are in process of construction to serve isolated centres. These are—Aiyura Agricultural Station—30 kW; Mount Hagen—120 kW; Mendi (at tender stage)—200 kW; Tapini (under construction)—30 kW. The Commonwealth Department of Works has a Stream Gauging Section and maintains records of many of the main rivers in order to provide material for future investigations into some of the major hydro-electric potential which exists in the Territory.

In 1950 the Commonwealth Government joined with the British Aluminium Co. Ltd. of London to form a company, New Guinea Resources Prospecting Co. Ltd., to locate and develop large capacity hydro-electric schemes in New Guinea (the Commonwealth Government later sold its interest). The company carried out very extensive investigations into the rivers of the Gulf of Papua and, in particular, into the Purari River.

CHAPTER 7

WATER CONSERVATION AND IRRIGATION

RESOURCES, UTILIZATION AND NATIONAL AND INTERSTATE ASPECTS

Official Year Book No. 51, pages 228-31, contains a description of recent developments in the measurement of Australia's water resources. For information concerning general, descriptive and historical matter *see also* Year Book No. 37, pages 1096-1141.

For further details on geographical and climatic features determining the Australian water pattern, *see* the chapter Physiography; on water supply and sewerage in metropolitan areas, cities and towns, the chapter Local Government; and on the generation of hydro-electric power, the chapter Electric Power Generation and Distribution, of this issue.

A series of maps showing the location of major dams and reservoirs and the various irrigation schemes operating in each of the States may be found on pages 259-65 of Year Book No. 46, and a map showing the extent of known artesian basins throughout Australia is shown on page 273 of Year Book No. 48.

Water resources and their utilization

Surface supplies

An assessment of Australia's surface water resources has been made, based on measured and estimated stream flows within 197 river basins, as follows. The total average annual discharge of Australian rivers has been assessed at 280 million acre feet. This can be divided into 108 million acre feet measured discharge and 172 million acre feet estimated for areas where there are generally no gauging records. For the whole area of Australia (approximately 3 million square miles) only 1.9 million square miles are regarded as contributing to stream flow (i.e. there is practically no flow from Western Plateau drainage division and from arid parts of other divisions).

The flow of Australian rivers is small in comparison with the flow of rivers in other continents, some examples of which, expressed as mean annual discharges in millions of acre feet, are: Amazon, 2,950; Mississippi, 465; Mekong, 405; Niger, 308; Volga, 205; and the ten major rivers of the United States of America in the aggregate, 900.

Major dams and reservoirs

The table below lists existing major dams and reservoirs, together with those under construction and those projected, at June, 1965. The list is confined to dams and reservoirs with a capacity of 100,000 acre feet or more. There are many others of smaller capacity in Australia.

MAJOR DAMS AND RESERVOIRS IN AUSTRALIA

Name	Location	Capacity (acre feet)	Height of wall (feet)	Remarks
EXISTING DAMS AND RESERVOIRS				
Bucumbene	Eucumbene River, New South Wales	23,540,000	381	Part of Snowy Mountains Hydro- electric Scheme
Eildon	Upper Goulburn River, Victoria	2,750,000	260	Storage for irrigation and for the generation of electricity
Hume	Murray River, near Albury, New South Wales	2,500,000	142	Part of Murray River Scheme— storage for domestic, stock and irrigation purposes. Hydro- electric power also developed
Warragamba	Warragamba River, New South Wales	1,670,000	379	For Sydney water supply. Also provides for generation of hydro-electricity and flood mitigation

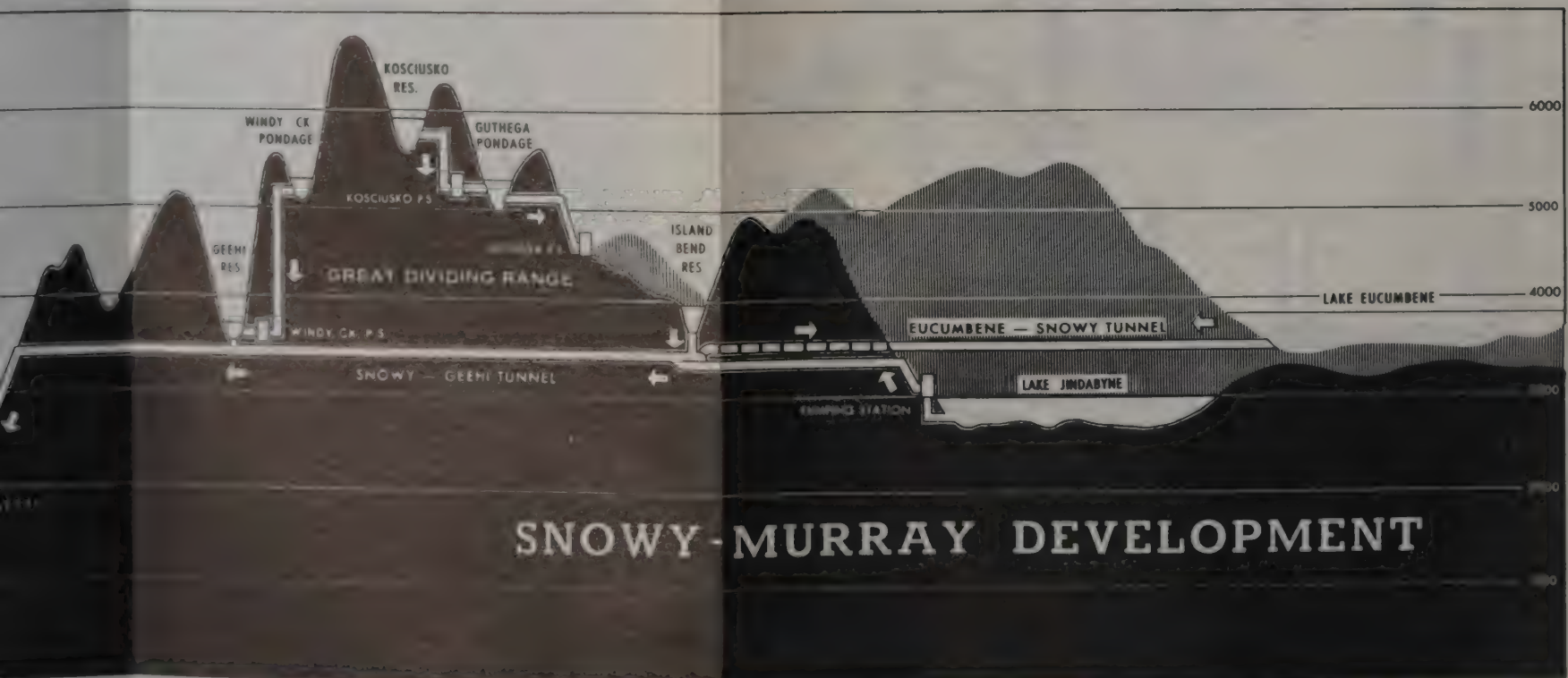
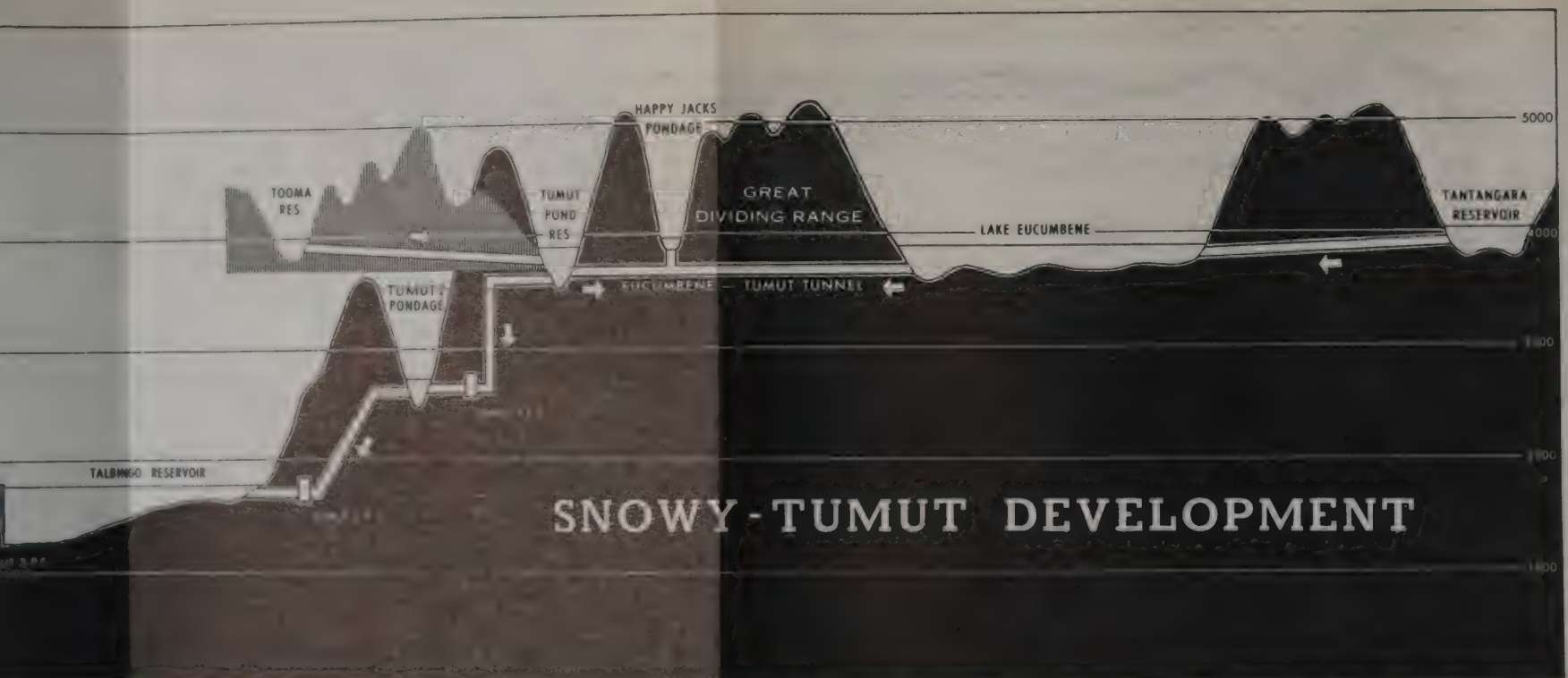
(a) Useful storage only.

MAJOR DAMS AND RESERVOIRS IN AUSTRALIA—*continued*

Name	Location	Capacity (acre feet)	Height of wall (feet)	Remarks
EXISTING DAMS AND RESERVOIRS— <i>continued</i>				
Menindee Lakes Storage	Darling River, near Menindee, New South Wales	1,470,000	..	Part of Darling River Water Conservation Scheme for irrigation
Miena	Great Lake, Tasmania	21,300,000	40	Storage for Poatina hydro-electric power station. (See also under Dams and Reservoirs under Construction)
Burrinjuck	Murrumbidgee River, New South Wales	837,000	264	Storage for irrigation and production of hydro-electric power
Somerset	Stanley River, Queensland	735,000	173	Brisbane-Ipswich water supply, flood mitigation and small hydro-electric power station
Lake Victoria	Murray River, near South Australian border, in New South Wales	551,700	..	Natural off-river storage for irrigation in South Australia. Storage improved by construction of embankments and control regulators
Lake Echo	Lake Echo, Tasmania	(a)412,200	60	Storage for Lake Echo, Tungatinah, Liapootah, Wayatinah and Catagunya hydro-electric power stations
Keepit	Namoi River, near Gunnedah, New South Wales	345,000	177	For rural water supplies and hydro-electricity, generation
Arthur Lakes	Source of Lake River, near Great Lake, Tasmania	(a)343,000	50	Part of Great Lake hydro-electric power development
Waranga	Goulburn River, Victoria	333,400	..	Irrigation storage
Tinaroo Falls	Barron River, North Queensland	330,000	136	For irrigation purposes in the Mareeba-Dimbulah area
Glenbawn	Hunter River, near Scone, New South Wales	293,000	251	Part of Hunter Valley conservation work, for irrigation and flood mitigation
Rocklands	Glenelg River, Victoria	272,000	..	Part of Wimmera-Mallee domestic and stock water supply system
Clark	Derwent River, Tasmania	(a)253,400	200	Storage for Tarraleah, Liapootah, Wayatinah, and Catagunya hydro-electric power stations. (See also under Dams and Reservoirs under Construction)
Eppalock	Campaspe River, near Heathcote, Victoria	252,860	150	To supplement supply to Bendigo and for irrigation
Wyangala	Lachlan River, New South Wales	(b)245,000	200	Storage for domestic, stock and irrigation purposes and for generation of hydro-electric power. (See also under Dams and Reservoirs under Construction)
Tantangara	Murrumbidgee River, New South Wales	(a)193,000	148	Part of Snowy Mountains Hydro-electric Scheme
Avon	Avon River, New South Wales	173,800	232	Part of Sydney water supply
Glenmaggie	Gippsland, Victoria	154,300	100	Storage for irrigation
Lake St. Clair	Central Highlands, Tasmania	(a)154,200	..	Improved natural storage for Tarraleah hydro-electric power station
Wellington	Collie River, Western Australia	150,100	112	For supply of water to irrigation districts and to agricultural areas and country towns
Koombooloomba	Tully River, North Queensland	146,000	123	For hydro-electric and irrigation purposes
Serpentine	Serpentine River, Western Australia	144,000	171	For Perth water supply
Lake Brewster	Lachlan River, near Hillston, New South Wales	123,900	..	Storage of rural water supplies for the lower Lachlan
Cairn Curran	Loddon River, Victoria	120,600	..	Storage for irrigation
Upper Yarra	Yarra River, Victoria	110,000	270	For Melbourne water supply

(a) Useful storage only.

(b) Temporary reduced level.



MAJOR DAMS AND RESERVOIRS IN AUSTRALIA—*continued*

Name	Location	Capacity (acre feet)	Height of wall (feet)	Remarks
DAMS AND RESERVOIRS UNDER CONSTRUCTION				
Miena . . .	Great Lake, Tasmania	1,710,000	40	Miena Dam (<i>see also under Existing Dams and Reservoirs</i>) is at present being replaced by a new dam to increase storage for Poatina hydro-electric power station
Burrendong . . .	Macquarie River, near Wellington, New South Wales	1,361,000	250	For rural water supplies, flood mitigation and possible hydro-electric power generation
Blowering . . .	Tumut River, New South Wales	1,300,000	370	For regulation of discharges from stations of Snowy Mountains Hydro-electric Scheme, primarily for irrigation but also for hydro-electric power generation
Wyangala . . .	Lachlan River, New South Wales	1,000,000	270	Strengthening and enlarging of existing dam for increased water supply and hydro-electric power generation. (<i>See also under Existing Dams and Reservoirs</i>)
Clark . . .	Derwent River, Tasmania	432,000	220	Enlarging of existing dam for increased storage capacity for Tarraleah, Liapootah, Wayatinah and Catagunya hydro-electric power stations. (<i>See also under Existing Dams and Reservoirs</i>)
Jindabyne . . .	Snowy River, New South Wales	(a) 314,000	225	Part of Snowy Mountains Hydro-electric Scheme
Wuruma . . .	Nogo River, Central Queensland	157,000	120	For irrigation storage
Rowallan . . .	Mersey River, North Tasmania	110,000	140	Storage for Mersey Forth power development
Eungella . . .	Broken River, North Queensland	104,000	150	Provision of cooling water for Collinsville power station and for irrigation purposes

DAMS AND RESERVOIRS PROJECTED

Chowilla . . .	Murray River, in South Australia, near Victorian border	65,000,000	41	Regulation of the lower Murray River
Ord River . . .	Near Wyndham, Western Australia	3,500,900	200	For irrigation, generation of hydro-electric power and flood mitigation. (Additional 6,000,000 acre feet flood control proposed)
Maraboon . . .	Nogoa River, Central Queensland	1,170,000	148	For irrigation and probable thermal power station
Buffalo (second stage) .	Buffalo River, near Myrtleford, Victoria	800,000	260	For irrigation
Warkworth . . .	Wollombi Brook, Hunter Valley, New South Wales	406,000	130	Flood mitigation and irrigation dam for the Hunter Valley
Mokoan . . .	Winton Swamp, near Benalla, Victoria	300,000	35	To store flood flows in Broken River for irrigation
Talbingo . . .	Tumut River, New South Wales	(a) 130,000	530	Part of Snowy Mountains Hydro-electric Scheme

(a) Useful storage only.

(b) Subject to final survey.

Irrigation

For some brief remarks on the history of irrigation in Australia *see* issues of the Year Book prior to No. 39. Trends in irrigation practice in more recent years were described in Year Book No. 37, page 1099.

AREA OF LAND IRRIGATED, STATES AND TERRITORIES, 1960-61 to 1964-65
(Acres)

Season and crop	N.S.W. (a)(b)	Vic. (c)	Qld	S.A.	W.A.	Tas.	N.T. (d)	A.C.T.	Aust. (e)
1960-61	837,191	1,007,180	186,697	102,023	48,551	18,934	602	1,432	2,202,610
1961-62	964,748	1,117,900	209,419	108,400	48,679	23,189	538	1,303	2,474,176
1962-63	1,036,846	1,151,555	221,161	112,813	51,501	24,285	434	1,247	2,599,842
1963-64	1,060,479	1,137,241	252,082	117,870	55,194	33,570	973	1,081	2,658,490
1964-65—									
Cotton	1,385		4,148	..	5,496	..	..	..	11,029
Hops	..	(f)	..	..	(g)	1,553	..	..	(h) 1,553
Orchards	27,605	44,743	(i) 8,092	30,094	11,710	5,955	83	8	128,290
Rice	61,617	..	..	..	(g)	..	(j)	..	(h) 61,617
Sugar-cane	(f)	..	120,556	..	..	..	..	..	h 120,556
Tobacco	n.a.	n.a.	13,170	..	..	..	..	..	(h) 13,170
Vegetables	4,375	26,884	35,020	9,917	9,379	8,302	114	69	94,060
Vineyards	14,305	47,778	(k)	28,286	1,081	..	..	..	(h) 91,450
Other crops (including fodder and fallow land)	265,125	90,579	71,634	18,878	5,259	4,318	247	425	456,465
Total, crops	374,412	209,984	252,620	87,175	32,925	20,128	444	502	978,190
Pastures	552,888	979,071	28,224	35,964	30,110	14,194	143	618	1,641,212
	(b)								(c)
Total, 1964-65	1,198,404	1,189,055	280,844	123,139	63,035	34,322	587	1,120	2,890,506

(a) Source: Water Conservation and Irrigation Commission. (b) Includes total area irrigated by licensed diversions, but details for individual crops, etc., (in 1964-65 271,104 acres), are not available. (c) Source: State Rivers and Water Supply Commission. (d) Incomplete, excludes area of rice irrigated. (e) See footnote (b) to New South Wales. (f) Not available separately; included in Other crops. (g) Not available for publication; included in Other crops. (h) Incomplete, see footnotes to individual States. (i) Includes vineyards. (j) Not available for publication; excluded from totals. (k) Included with Orchards.

Irrigation research

Comprehensive programmes of research and investigation are being pursued by State water and agricultural authorities and the Commonwealth Scientific and Industrial Research Organization, often in collaboration. Special attention is being given to the following: high water tables due to the application of water; surface accumulation of salt and other soil changes associated with irrigation; methods of applying water efficiently; soil treatments to improve the physical condition of irrigated heavy clay soils; the utilization of irrigated pastures by stock; growth problems affecting plants and trees; the prevention of evaporation from water storages; the potability of saline waters for stock; the de-salting of brackish waters; and cloud-seeding over catchments.

Irrigation is studied by the Commonwealth Scientific and Industrial Research Organization at a number of its research stations and laboratories, the principal one being the Irrigation Research Laboratory at Griffith (New South Wales), where investigations are concerned with limiting the degradation of land by irrigation, improving the quality and range of irrigated crops, and assessing the amount of water required by irrigated crops and the most economical means of applying it. The crops being studied include citrus, cotton, wine grapes and lucerne. The Organization's Division of Plant Industry studies irrigated pastures at Deniliquin (New South Wales) and Canberra (Australian Capital Territory), and tobacco at Mareeba (Queensland). At Adelaide (South Australia) and Merbein (Victoria) the Horticultural Research Section is working on problems of the dried-fruit industry. The Division of Land Research conducts research on rice at the Coastal Plains Research Station, Darwin (Northern Territory), and on a number of irrigated crops, including rice, safflower, linseed and cotton, at the Kimberley Research Station (Western Australia). The Division has also carried out a number of hydrological investigations in connection with the utilization of underground water for irrigation. The Division of Soils and the Soil Mechanics Section are studying methods of reducing seepage from earthen dams, and take part in the examination of the physical properties of sediments beneath proposed dam sites. The Division of Soils is also looking at underground water movement and the water balance in the south-east of South Australia, and at the drainage and soil moisture regime of the irrigated swamps of the lower Murray River. The Division of Physical Chemistry is investigating methods of minimizing evaporation losses from water storages by the use of monomolecular layers.

The Irrigation Research and Extension Committee plays an important part in the agricultural activity of the Murrumbidgee Irrigation Areas. It is representative of the New South Wales Department of Agriculture, the Commonwealth Scientific and Industrial Research Organization, the Rural Bank of New South Wales, the Soil Conservation Service of New South Wales, the

Water Conservation and Irrigation Commission and the Rice Marketing Board of New South Wales, and certain farmers' organizations (including the M.I.A. Council of Horticultural Associations). Finance is provided by these authorities on an agreed basis. The objectives are: to enable the agricultural extension services to the farmers in the defined sub-region to be continued and developed; to provide a system for advising on local agricultural policy and organization; to provide means for farmer opinion to have due weight in the consideration of regional agricultural administration and policy; to achieve a unified approach to sub-regional extension in all branches of agriculture; to advise on the research needs of the sub-region and to co-ordinate the agricultural research of the various rural institutions working therein; to achieve close liaison between research and extension; and to conduct research in extension methods.

Preservation of catchments

Since water conservation commences on the catchments it is becoming increasingly recognized that anything which interferes with catchment efficiency affects the quantity of water available for all purposes. Active steps are being taken to counteract soil erosion, to conserve soil generally, and to minimize the effects of floods, overstocking, bush fires, and the destruction of vegetative cover. All States and the Commonwealth have initiated forestry policies which provide for reforestation and the preservation of catchments. In recent years efforts to counteract soil erosion have been intensified, and there is some evidence of a more unified approach to catchment, water, forestry, and land use factors regarded as parts of a single problem.

Sub-surface supplies

Much of Australia's underground water is obtained from artesian and sub-artesian basins and is used for stock purposes. These supplies are indispensable in most inland areas. The quality of the water ranges from usable to very saline. In inland areas a considerable amount of water has been tapped that is unusable because of its high salt content. Because of this, development of an economic desalting process would provide the interior with additional large quantities of usable water.

Considerable use is also made of sub-surface water, other than pressure water, from local storages, particularly in the well-settled areas. The water is used mainly for domestic and stock purposes. Compared with other countries with similar rainfall and climate, underground water is not used extensively for town and individual industrial supplies, but its use for these purposes is increasing.

Artesian and sub-artesian supplies. Pressure water (either artesian or sub-artesian), variable in quantity and quality, is obtainable in many parts of Australia, the various artesian basins extending over about half the continent. A map of Australia showing the extent of the known artesian basins appears on page 273 of Year Book No. 48.

The Great Artesian Basin, the most extensive in the world, underlies an area of approximately 676,250 square miles, comprising about 421,000 in Queensland, 135,000 in South Australia, 81,250 in New South Wales and 39,000 in the Northern Territory. The table on page 164 shows the principal defined water-bearing basins in Australia.

More than 18,000 artesian bores have been drilled within the Great Artesian Basin, while the daily free discharge from all bores continuing to flow in Australia has been stated as exceeding 350 million gallons, of which the loss by evaporation and seepage has been estimated at more than 90 per cent. Sub-artesian bores and wells throughout Australia number more than 200,000.

Artesian water generally is good stock water, but most is unsuitable for plant life, while in certain areas sub-artesian waters are suitable for all uses including irrigation. In the Eucla Basin and parts of the Murray and Pirie-Torrens Basins the water is of poor quality, being barely suitable for stock.

In common with other countries possessing artesian supplies Australia has been faced with the problem of flow diminution. It was recognized early that flows were diminishing as more bores were drilled, but it is now considered that while many of the bores will ultimately cease to flow, others will assume a perpetually steady rate of flow, corresponding with the average intake of water from rainfall absorbed by permeable outcrops, mainly sandstone and limestone. Diminution in flows from artesian bores has emphasized the need to eliminate wastage as much as possible, and investigations have been made regarding wasteful methods of distribution of artesian water by open channels or bore drains and the careless use of water. (For greater detail on this subject see Year Book No. 37, pages 1103-4.)

PRINCIPAL WATER-BEARING BASINS IN AUSTRALIA

Name	State	Geological age of chief aquifers	Approximate area	Depth to pressure water
			square miles	feet
Great Artesian . . .	Queensland, New South Wales, South Australia and Northern Territory	Mesozoic . . .	676,250	Up to 7,000
Canning . . .	Western Australia	Mesozoic-Palaeozoic	150,000	100 to 1,800
Murray . . .	Victoria, New South Wales and South Australia	Miocene-Eocene . .	109,000	100 to 1,300
Georgina (including Barkly and Daly)	Northern Territory, Queensland	Cretaceous, Ordovician, Cambrian and Upper Proterozoic	108,000	150 to 1,000
Eucla . . .	Western Australia, South Australia	Pliocene-Miocene . .	74,000	300 to 2,000
Carnarvon . . .	Western Australia	Cretaceous, Permian	45,000	200 to 4,000
Perth . . .	Western Australia	Recent, Jurassic . .	21,000	200 to 2,500
Western District (Otway)	Victoria . . .	Pleistocene-Upper Cretaceous	13,000	100 to 4,500
Basins of Ord-Victoria region	Northern Territory, Western Australia	Mainly Cambrian and Permian	12,000	200 to 1,000
Pirie-Torrens . . .	South Australia . .	Recent, Pleistocene .	9,000	Up to 600
East Gippsland . .	Victoria . . .	Pleistocene-Eocene .	3,500	200 to 3,500
Adelaide . . .	South Australia . .	Recent, Oligocene . .	1,100	200 to 600

Shallow groundwater. Shallow groundwater supplies are used in various parts of Australia for industry, irrigation, stock and domestic purposes. Two examples of the use of these shallow supplies for industrial and domestic purposes occur in New South Wales. The Hunter District Water Board pumps 15 million gallons a day for general use from the Tomago coastal sands near Newcastle, and at Botany, Sydney, private industry pumps 8-10 million gallons a day for its own use from similar sands. Exploration of the coastal sands north of the Tomago Sands has revealed a further potential production of 25 million gallons a day. Examples of the use of shallow groundwater supplies for irrigation include the Burdekin Delta and the Bundaberg area in Queensland. In the Burdekin Delta, which covers an area of some 200 square miles, the present extraction for irrigation from underground sources is in the region of 200,000 acre feet per annum (about 150 million gallons a day) and in the Bundaberg area it is approximately 50,000 acre feet per annum (about 37 million gallons a day).

In recent years there has been a marked increase, particularly in Queensland, New South Wales and Victoria, in investigation into the groundwater resources of river and coastal alluvium for irrigation and town water supplies.

National and interstate aspects

As the Commonwealth Constitution makes special reference to water rights, both the Commonwealth and the State Governments have an interest in the control and conservation of water. The main responsibility for control of water resources rests with the individual State Governments, but as political boundaries sometimes intersect river valleys and catchments, co-operation between Governments has been necessary to develop resources in certain cases. Specific examples of Commonwealth-State and interstate co-operation and approach are given in the following paragraphs.

Australian Water Resources Council

The Australian Water Resources Council was established by joint action of the Commonwealth and State Governments in 1962. The council comprises the Minister for National Development as Chairman, the Minister for Territories, and the Ministers for Water Supply in each State. It has as its principal objective the provision on a continuing basis of a comprehensive assessment of Australian water resources and the extension of measurement and research so that future planning can be carried out on a sound and scientific basis.

An important factor is that the Council is not concerned with particular works projects, normally the responsibility of the States or the Commonwealth, for which there are established channels, such as the Premiers' Conference and Loan Council, for the exchange of views and allocation of funds.

Assisting the Council is a Standing Committee of senior officers from Commonwealth and State water authorities, and there are a number of committees advising the Standing Committee,

namely: Water Research and Education Steering Committee, Technical Committee on Surface Water, Technical Committee on Underground Water, Advisory Committee on Hydraulics Laboratory Facilities and several *ad hoc* panels.

The Water Resources Council published, early in 1965, a *Review of Australia's Water Resources (Stream Flow and Underground Resources)* 1963. Among important matters receiving attention the more urgent include the recommendation of accelerated programmes of stream-gauging and underground water investigations.

In 1964 Australian Governments adopted an accelerated programme of stream-gauging (surface water measurement) to extend over the next ten years. They have also recognized the need for a continuous programme of underground water investigations. Under the *States Grants (Water Resources) Act* 1964 the Commonwealth Government grants financial assistance to the States in connection with the measurement and investigation of their water resources. This means that \$3,692,000 of additional funds (a sixty per cent increase on current rates of expenditure) relative to these programmes could be made available over the three years to 1966-67.

All authorities represented on the Council and its committees have agreed to work towards a common, nation-wide system of recording hydrologic data in a digital form suitable for rapid analysis by computer. The Council is also giving attention to the extent to which particular kinds of water research, and specialized training of research workers, can assist in bringing about the comprehensive water resources assessment envisaged as the Council's objective.

Murray River scheme

The Murray River and its tributaries form the largest river system in Australia. The catchment is approximately 408,000 square miles, or one-seventh of the area of the Australian continent, comprising five-sixths of New South Wales, over one-half of Victoria, one-sixth of Queensland and one-fortieth of South Australia. The Murray proper is 1,600 miles long. Its main tributaries are the Darling (1,700 miles), the Murrumbidgee (980 miles), and the Goulburn (350 miles). The average annual flow of each of the chief contributory streams is as follows: Upper Murray, including the Mitta Mitta and Kiewa Rivers, 3,820,000 acre feet; Darling River, 2,820,000 acre feet; Goulburn River (including Broken River), 2,580,000 acre feet; Murrumbidgee River, 2,050,000 acre feet; and Ovens River, 1,266,000 acre feet. Irrigated production in the Murray River Basin is mainly grapes for wine, dried fruits, fresh fruits, rice, vegetables, dairy produce, wool, and fat lambs.

River Murray Waters Agreement. For a brief summary of the historical events leading up to the River Murray Agreement (1915) by the Governments of the Commonwealth, New South Wales, Victoria, and South Australia, see issues of the Year Book prior to No. 39. Under the Agreement construction works are carried out by the States (which are also responsible for maintenance) subject to the approval and direction of the River Murray Commission. The Agreement provides that the minimum quantity of water to be allowed to pass for supply to South Australia in each year shall be sufficient to maintain certain specified flows in the lower river varying from 47,000 acre feet a month in the winter months to 134,000 acre feet a month in the four summer months of maximum demand—the total amounting to 1,254,000 acre feet over twelve months. The flow at Albury is shared equally by New South Wales and Victoria, and each of these States has full control of its tributaries below Albury, subject in each case to the fulfilment of the South Australian allocation. For a brief outline of the operation of the Agreement prior to 1949, see Year Book No. 40, page 1065, and earlier issues.

At a conference of Ministers held in 1949 to consider the diversion of the Snowy River it was decided that, by diversion of streams in the Snowy Mountains area, an average of approximately 440,000 acre feet per annum would be added to the Murray River (see Snowy Mountains Hydro-electric Scheme, page 144) and that increased storage should be provided in order to give additional regulation of the Murray River itself as well as to provide for regulation of the diverted waters. Hydro-electric potentialities would also affect the size of the storage.

The River Murray Commission investigated the position and subsequently recommended to the contracting Governments that the River Murray Waters Agreement be amended to provide for enlargement of the Hume Reservoir by 500,000 acre feet to 2,500,000 acre feet. A conference of Ministers in 1954 agreed to the enlargement, and it was also agreed that the Commission should be given power to construct regulators and to carry out such other work on the Murray River between Tocumwal and Echuca as it considered necessary to reduce the losses from the regulated flow in that stretch of the river. The amended Agreement was ratified in the Parliaments of the Commonwealth and the three States and was proclaimed on 7 April 1955. In view of the proposed diversions by the Snowy Mountains Authority to and from the Murray River, and for other reasons, amendments to those sections of the River Murray Waters Agreement dealing with

the distribution of the waters of the Murray were considered desirable. Following ministerial conferences, amendments were ratified by the four Parliaments concerned, and came into force on 6 November 1958.

Further amendment of the Agreement to provide for the construction of a storage of approximately 5,000,000 acre feet capacity at Chowilla in South Australia was ratified by legislation in the Commonwealth and State Parliaments and came into force on 30 April 1964. The dam will be located some six miles downstream from the border between Victoria and South Australia, and will consist of concrete outlet structures and a bank forty-one feet high across the flood plain. The overall length of the dam will be three and one-third miles, and the lake formed behind it will extend to Wentworth Weir, a distance of about 120 miles by river.

As a temporary measure, to assist in drought mitigation pending completion of the Chowilla reservoir, it has been agreed that portion of the waters in the Menindee Lakes storage will be made available to the Commission for allocation between the States of New South Wales, Victoria and South Australia. The arrangement, to operate for a period of seven years from 1 January 1963, was approved by the *Menindee Lakes Storage Agreement Act 1963*.

The quantity (in acre feet) of water diverted during 1964-65 from the Murray and its tributaries for irrigation and other purposes was as follows: New South Wales, 2,115,000; Victoria, 2,555,000; South Australia, 291,000; a total of 4,961,000 acre feet.

River Murray works. One of the major works of the Murray River scheme is the Hume Reservoir, situated just below the junction of the Murray and Mitta Mitta Rivers, ten miles above Albury, forming a lake of 56,000 acres. The design comprises a mass concrete spillway and outlet works extending for 1,000 feet, and an earthen embankment 142 feet high extending for 4,000 feet across the river flats, the length of the total structure being approximately one mile. Work on the enlargement of the reservoir to its approved capacity of 2,500,000 acre feet was completed in 1961.

The Yarrawonga Diversion Weir, which was completed in 1939, raised the river level so that water could be diverted by gravitation into main channels constructed on either side of the river. Between the Yarrawonga Weir and the Murray mouth, thirteen weirs and locks have been built. Two flood diversion weirs have been constructed on the Murrumbidgee—one between Hay and the Lachlan junction and the other below the Lachlan junction.

The Mulwala Canal, supplied from the Yarrawonga Weir, has an off-take capacity of 2,500 cubic feet a second, servicing 1,800,000 acres of land in New South Wales. The Yarrawonga Channel, on the Victorian side, has an off-take capacity of 1,250 cubic feet a second, serving 300,000 acres. Not all of this area is irrigated.

Adjoining the river in New South Wales, and 35 miles from the Murray-Darling junction, Lake Victoria storage, with a surface area of 27,670 acres, was completed in 1928. The water released from Lake Victoria is used by the South Australian settlements. The inlet channel to Lake Victoria was enlarged in 1957 to permit greater diversion of periodical flood flows of short duration.

Five barrages across channels near the Murray River mouth connecting Lake Alexandrina with the sea were completed in 1940 to prevent ingress of salt water to Lakes Alexandrina and Albert and to the lower river, thereby increasing the productivity of adjacent lands. The structures maintain a sufficiently high level for 50 miles up river to permit watering by gravitation of a considerable area of reclaimed river flats. The total distance across the barrages and intervening islands is 15 miles.

In addition to the works carried out under the auspices of the Commission, the separate States have constructed thousands of miles of distribution channels and have provided a number of storages on the tributaries, thereby contributing very materially to the large amount of irrigation development in the Murray Basin. The main storages are: New South Wales—Menindee Lakes Storage (Darling), Burrinjuck (Murrumbidgee), Keepit (Namoi), Burrendong (Macquarie), and Wyangala (Lachlan); Victoria—Eildon (Goulburn), Waranga (Goulburn), Eppalock (Campaspe), and Cairn Curran (Loddon). Details of these and other State works on Murray tributaries will be found in the sections dealing with State systems. No storages exist on the Murray in South Australia at present, but the construction of a large storage at Chowilla is proposed (*see above*).

New South Wales-Queensland Border Rivers Agreement

The catchments for the border streams of New South Wales and Queensland (2,000 square miles) extend to the granite areas in the vicinity of Tenterfield (New South Wales) and Stanthorpe (Queensland), and elevation rises to 3,000 feet. Average rainfall is 30 inches. The catchments and the areas suitable for irrigation are approximately equal in each State. Climatic conditions are such that from April to October it is necessary to supplement rainfall by irrigation to stabilize

and increase production. The capacity of the area to grow lucerne and tobacco under irrigation has already been demonstrated. Other possible development of the area includes irrigation of cotton, root crops, cereals, and citrus fruit, and expansion of the fat stock industry.

The New South Wales-Queensland Border Rivers Agreement came into effect on 1 July 1947. The Agreement provides for the construction of certain works on those sections of the Severn, Dumaresq, Macintyre and Barwon Rivers which constitute part of the boundary between New South Wales and Queensland for the furtherance of water conservation, water supply and irrigation in those States.

The works to be constructed comprise a dam on the Dumaresq River at a site to be selected by the Water Conservation and Irrigation Commission of New South Wales (the constructing authority) to give a storage basin with a capacity as large as is reasonably practicable and not less than six nor more than twelve weirs as may be found necessary to meet the requirements of irrigation along the rivers. Provision is also made for the construction of not more than four regulators in the effluents from the barrier rivers and for the taking over of the existing weir on the Macintyre River at Goondiwindi and the existing weir on the Barwon River at Mungindi (the Irrigation and Water Supply Commission of Queensland is the constructing authority for new weirs and regulators). The cost of these works and of administration are to be borne by the States in equal shares. The Agreement further provides that the water discharge from the Dumaresq storage, whether by regulated or unregulated flow, shall be available to the two States in equal shares.

After unfavourable foundation conditions were disclosed at several dam sites on the Dumaresq River, investigations were extended to tributary streams, and superficially suitable sites located on Pike Creek and the Mole River. A geophysical survey was made at each of these sites and preliminary comparative estimates were prepared to determine the relative economy of providing one large storage at Mingoola or two smaller storages on the tributaries. Following exploratory drilling of the tributary sites, a report dealing with alternative storage proposals and possible amendments to the existing Agreement was submitted to the participating States. It was subsequently agreed by the State Governments that, at the appropriate time, the existing Agreement would be amended to include, *inter alia*, provision for the construction of storages on Pike Creek (Queensland) and the Mole River (New South Wales).

Completed works include Bonshaw and Cunningham Weirs on the Dumaresq River, a weir and regulator on the Barwon River at the offtake of the Boomi River, and a low level weir to establish a pumping pool at Glenarvon on the Dumaresq River. The existing Goondiwindi and Mungindi Weirs are being maintained, operated and controlled by the Queensland Irrigation and Water Supply Commission. Until a dam has been constructed it is unlikely that any other weirs will be required.

Snowy Mountains Hydro-electric Scheme*

Following a comprehensive investigation into both the water and power potential of the Snowy River waters by a Technical Committee representative of the Commonwealth and the States of New South Wales and Victoria in 1947 and 1948, and the submission by the Committee of reports in 1948 and 1949, the Commonwealth Parliament passed the *Snowy Mountains Hydro-electric Power Act* 1949 setting up an Authority to implement the proposals agreed upon.

The basis of the proposals is to impound the Snowy River waters at high elevations and, by diverting them into tunnels passing under the Alps, to use their potential power for the generation of electricity and then to discharge them into the Murray and Murrumbidgee River systems for use in the irrigation areas.

The scheme involves two main diversions, that of the Eucumbene, a tributary of the Snowy, to the Upper Tumut River, and that of the main stream of the Snowy River at Island Bend and Jindabyne to the Swampy Plain River. In addition, works required to make use of the waters of the Upper Murrumbidgee, the Upper Tumut, the Upper Tooma and the Gechi Rivers for power generation also provide additional regulation of these streams, and this makes more water available for irrigation. Details of the two trans-mountain diversions and the associated power works together with details of progress and construction are given in the chapter *Electric Power Generation and Distribution* (see pages 144-6).

An additional 500,000 acre feet of water per annum is now available for irrigation in the Murrumbidgee Valley. When all works are completed, it is estimated that the total gain to the Murrumbidgee by diversion and regulation will amount to 1,120,000 acre feet per annum and the total gain to the Murray will be 800,000 acre feet per annum. This additional water should be sufficient to provide irrigation for approximately 1,000 square miles of land, which is expected to result in a substantial increase in annual primary production.

* See also the chapter *Electric Power Generation and Distribution*, page 144. For more detailed information see special article by the Commissioner, Snowy Mountains Hydro-electric Authority (Sir William Hudson) which appeared in Chapter XXIX. Miscellaneous of Year Book No. 42.

International aspects

Australia maintains contact with international developments in water conservation and irrigation through its membership, since 1952, of the International Commission on Irrigation and Drainage. This Commission was set up in India in 1950 in order that the technical experience of all countries might be pooled for the benefit of all, and to promote the development and application of the science and technique of irrigation and drainage in the engineering, economic and social aspects. The Commission is constituted of National Committees of participating countries, and fifty-four countries, including Australia, have already been admitted to membership.

The Central Office of the International Commission is situated in New Delhi, India. Congresses, which are held every three years, have taken place in India, Algeria, the United States of America, Spain and Japan, in that order. The sixth Congress was held in India in January 1966.

An Australian National Committee was established following a meeting of representatives of Australian authorities held in Melbourne in 1953. At that meeting it was decided, *inter alia*, 'that a National Committee should be formed and that the National Committee would consist of representatives of Government Departments, Statutory Authorities, firms and individuals actively interested in irrigation and drainage'. The Committee meets annually.

STATES AND TERRITORIES

The foregoing text deals with water conservation and irrigation in Australia generally and with international, national and interstate aspects. The following survey covers the local pattern of water resources and the steps taken by the State Governments to bring about their development. In the various States water policies tend to assume a distinctive and characteristic pattern closely allied with climatic conditions and specific local needs.

In Victoria almost every form of water scheme is in operation. In New South Wales major emphasis at present is on irrigation and stock development in the dry areas along the Murray and Murrumbidgee Rivers, though a substantial scheme of intensive irrigation is being conducted in the Murrumbidgee Irrigation Areas. In Queensland, up to the present, the predominant emphasis has fallen on water (mainly underground sources) for stock, and the development of small irrigation schemes in sub-humid and humid areas, especially to stabilize sugar production. Apart from regular irrigation practices along the Murray River, South Australian authorities are vitally concerned with reticulated supplies for rural areas and towns. Western Australia has developed unique rock catchments and piped supplies for agricultural areas and towns in dry districts. Tasmanian interest relates almost exclusively to hydro-electric generation. The Northern Territory is concerned primarily with stock supplies and the safeguarding of long stock routes.

New South Wales

On page 1110 of Year Book No. 37 information is given on the pattern of rainfall and the history of irrigation in New South Wales. (See also the chapter Physical Geography and Meteorology of this issue.)

Administration

The Water Conservation and Irrigation Commission of New South Wales consists of three members appointed by the Governor. The operations of the Commission cover water conservation, control of irrigation areas, the establishment, operation and maintenance of works for domestic and stock water supply, irrigation districts, flood control districts, sub-soil drainage districts, constitution of water trusts, the issue of licences for private irrigation, artesian and shallow boring, assistance under the provisions of the farm water supplies scheme, and river improvement works.

Under the Water Act, 1912-1955 the right to the use and flow and the control of water in all rivers and lakes which flow through, or past, or are situated within, the land of two or more occupiers, is vested in the Commission for the benefit of the Crown. A system of licences operates for the protection of private works of water conservation, irrigation, water supply, drainage, and prevention of inundation.

For particulars of the New South Wales-Queensland Border Rivers Agreement ratified by Acts of both States in 1947, see pages 166-7 of this chapter.

Schemes summarized

The bulk of irrigated land is along the Murray and its tributary the Murrumbidgee. Smaller areas are served by the Wyangala Dam, Lake Cargelligo and Lake Brewster on the Lachlan (a tributary of the Murrumbidgee), by Glenbawn Dam on the Hunter River, by Keepit Dam on the Namoi River, and by the Menindee Lakes Storage on the Darling River. None of the other rivers is regulated by large head storages, though weirs and dams have been provided for town supplies, etc. in many places. A head storage on the Macquarie River is nearing completion and construction of a dam has commenced on the Tumut River near Tumut. In addition, substantial use is made of artesian and sub-artesian water in pastoral areas.

New South Wales legislation provides for the constitution and control of various schemes having different characteristics and including irrigation areas, irrigation districts, water trust districts, flood control and irrigation districts, and river improvement districts. There are nine irrigation areas, although two of these, Yanco and Mirrool, are generally described under the one heading, namely, the Murrumbidgee Irrigation Areas. The Areas are: The Murrumbidgee Irrigation Areas, consisting of 451,263 acres served with water through a channel system stemming from the river at Berembid Weir; the Coomealla Irrigation Area of 34,672 acres, served by pumping from the Murray; the Curlwaa Irrigation Area of 10,393 acres, supplied from the Murray by pumping; the Hay Irrigation Area of 6,850 acres, supplied with water pumped from the Murrumbidgee; the Tullakool Irrigation Area of 18,006 acres, supplied from the Edward River by diversion at Stevens Weir; the Buronga (8,693 acres) and Mallee Cliffs (1,900 acres) Irrigation Areas, served by pumping from the Murray; and the Coleambally Irrigation Area (127,235 acres), served by diversion from the Murrumbidgee River. All these Areas are administered by the Commission, and details of the various schemes are given in the table on page 170.

The capacities of the main storages (in acre feet) are:

Darling—Menindee Lakes Storages (1,470,000);

Murray—Half share of Hume Reservoir, weirs and locks to Wentworth (1,361,420); Stevens Weir, Edward River (7,165);

Murrumbidgee—Burrinjuck Dam (837,000); Berembid Weir (40,000); Redbank Weir (7,360); Maude Weir (6,740);

Namoi—Keepit Dam (345,000);

Lachlan—Wyangala Dam (temporary reduced level 245,000); Lake Brewster (123,900); Lake Cargelligo (29,435); Jemalong Weir (2,200); and

Hunter—Glenbawn Dam (185,000 acre feet irrigation storage; 108,000 acre feet flood mitigation storage).

The total length of supply channels, drains, escape channels and pipe lines constructed by the Water Conservation and Irrigation Commission in New South Wales is 4,922 miles. This comprises 3,420 miles of supply channels (including main canals), 1,433 miles of drains and escape channels, and 69 miles of pipe lines.

Extent of systems and nature of irrigated culture

The table on page 170 shows the areas of the various irrigation systems and the areas irrigated in 1964-65 and corresponding particulars for the State as a whole during the seasons 1960-61 to 1964-65.

AREAS OF SYSTEMS AND OF LAND IRRIGATED: NEW SOUTH WALES 1960-61 TO 1964-65

(Source: Water Conservation and Irrigation Commission)

(Acres)

Season and system	Total area	Area irrigated(a)										Total
		Rice	Other cereals grown for grain	Fodder crops		Pastures		Vineyards	Orchards (b)	Vegetables	Fallow land and miscellaneous	
				Lucerne	Other	Sown	Natural					
1960-61	6,901,105	46,116	33,436	34,950	10,490	458,360	5,412	12,388	17,962	3,362	36,195	c 837,191
1961-62	6,952,579	50,223	57,779	40,273	14,024	522,748	5,097	11,515	18,080	2,784	50,443	c 964,748
1962-63	6,972,239	53,578	85,459	42,814	18,296	509,927	10,240	13,086	21,559	4,033	72,179	c 1036846
1963-64	6,912,942	59,331	82,376	45,823	11,846	496,787	8,389	12,810	24,451	2,859	82,046	c 1060479
1964-65—												
Irrigation Areas—												
Murrumbidgee (within the Areas)	451,263	30,233	38,843	6,435	939	93,409	3,515	6,213	23,424	3,740	29,438	236,189
Lands adjacent supplied under agreement	n.a.	..	..	342	333	1,047	..	..	102	7	200	2,031
Coomaalla	34,672	..	..	..	3	..	..	4,848	1,801	..	..	6,652
Curlwaa	10,393	..	..	..	23	..	..	355	1,263	..	..	1,641
Hay	6,850	..	..	160	635	1,784	136	..	..	..	..	(d) 2,715
Tullakool	18,006	1,022	115	75	210	6,960	..	..	..	..	140	8,522
Buronga	8,693	..	..	..	1	..	..	202	520	..	..	723
Mallee Cliffs	1,900	..	..	..	56	..	..	132	128	..	..	316
Coleambally	127,235	11,273	26,989	287	220	11,194	155	50	46	195	29,815	80,224
Total, Areas	e 659,012	42,528	65,947	7,299	2,420	114,394	3,806	11,800	27,284	3,942	59,593	339,013
Irrigation Districts—												
Benerambah	112,818	5,162	14,915	2,140	390	37,687	330	..	..	155	8,256	69,035
Tabbitta	32,330	309	830	230	15	2,845	150	..	..	..	480	4,859
Wah Wah	575,716	..	5,995	1,745	725	7,888	..	..	..	..	2,073	18,426
Berriquin	803,737	..	23,112	17,286	2,658	240,270	1,205	..	..	187	5,072	289,790
Wakool	503,322	7,187	8,404	1,845	1,924	70,942	..	..	..	..	4,095	94,397
Denimein	147,005	2,656	4,489	1,012	340	19,355	..	..	12	10	540	28,414
Jemalong and Wyldes Plains	224,556	..	3,801	9,436	537	14,996	460	..	..	..	30	29,260
Gumly	353	..	37	38	..	9	..	..	20	41	..	145
Deniboota	338,054	3,775	5,094	1,870	482	38,301	250	..	..	..	1,355	51,127
Total, Districts	2,737,891	19,089	66,677	35,602	7,071	432,293	2,395	..	32	393	21,901	585,453
Flood Control Districts—												
Lowbidgee	399,707	..	..	..	..	..	..	..	..	..	..	n.a.
Medgun	272,800	..	..	..	..	..	..	..	..	..	..	n.a.
Total, Flood Districts	672,507	..	..	..	..	..	..	..	..	..	..	n.a.
Irrigation Trusts—												
Pomona	1,580	..	..	..	..	..	..	760	130	..	..	890
Goodnight	1,104	..	..	..	..	..	..	580	46	..	..	626
Bungunyah-Koraleigh	1,810	..	..	..	..	..	..	935	113	40	..	1,088
Glenview	661	..	..	..	..	..	..	230	..	..	..	230
Brangan	4,933	..	..	..	..	..	..	..	..	..	..	n.a.
Bama	3,446	..	..	..	..	..	..	..	..	..	..	n.a.
Total, Trusts	13,534	..	..	..	..	..	..	e 2,505	(e) 289	(e) 40	..	(e) 2,834
Water Trusts—												
Domestic and stock supplies	2,829,791	..	..	..	..	..	..	..	..	..	..	..
Licensed diversions	n.a.	..	..	..	..	..	..	..	..	..	..	f 271,104
Total, 1964-65	6,912,735	61,617	132,624	42,901	9,491	546,687	6,201	14,305	27,605	4,375	81,494	1,198,404 (c)

(a) Excludes Flood Control Districts and some Irrigation Trusts, particulars for which are not available. (b) Citrus and deciduous; in 1964-65 deciduous amounted to 11,818 acres, of which 11,556 acres were in the Murrumbidgee Irrigation Areas. (c) Includes total area irrigated by Licensed Diversions, but details for individual crops, etc., are not available. (d) Includes lands outside irrigation areas supplied under special agreement. (e) Incomplete. (f) Details for individual crops, etc., are not available.

Irrigation Areas

Murrumbidgee. These areas, together with adjacent lands supplied under agreement, received 429,100 acre feet, or nearly a quarter of the total water (2,158,813 acre feet) allocated within the State for stock, domestic supply and irrigation. They are served by the Burrinjuck Dam on the Murrumbidgee, forty miles north-west of Canberra. The catchment above the dam is about 5,000 square miles. The river rises on the high plateau north of Mount Kosciusko where the average annual rainfall exceeds 60 inches. Flow for the irrigation areas and districts is supplemented by unregulated flow from the Tumut River below the dam. The dam also provides town supplies for Gundagai, Wagga, Narrandera, Hay, Balranald, and for towns served by the South-West Tablelands scheme.

Domestic and stock water and water for irrigation are supplied to the Irrigation Districts of Tabbita, Benerembah and Wah Wah, and the Flood Control and Irrigation District of Lowbidgee. Flood flows are relied on to serve the Lowbidgee district, and water is not released from the dam for that purpose. For the other undertakings, however, water is stored during the winter, fed by melting snows and spring freshets, and is released during the September-May irrigation season. It passes along the river channel to Berembd Weir, 240 miles westward, where it is diverted to the main canal with an off-take capacity of 1,600 cubic feet a second. The main canal has been completed to beyond Griffith, 106 miles from the off-take. Reticulation channels aggregate approximately 900 miles and drainage channels 880 miles. In addition, approximately 440 miles of supply channels run through irrigation districts adjacent to the Murrumbidgee Areas in which the water supply is operated and maintained by the Water Conservation and Irrigation Commission.

The Water Conservation and Irrigation Commission controls land transactions and water supplies for the Murrumbidgee Irrigation Areas only, and has no jurisdiction over land transactions in the adjacent irrigation districts, although it is responsible for the operation and maintenance of the water supply in these areas. Other local government services, including electricity and town water supply, are provided by Councils. Land is disposed of by the Commission by purchase or under perpetual lease tenure or leased for short terms for grazing or cultivation. The area under occupation at 30 June 1965 was 414,929 acres, including 38,083 acres held for short lease grazing, agriculture, etc.

The land on which the Murrumbidgee Irrigation Areas and associated districts are situated originally comprised large sheep stations and was sparsely populated, but at 30 June 1965 its population was approximately 29,425, that of Leeton Shire being 10,725 and that of Wade Shire, 18,700. The principal products of the Murrumbidgee Irrigation Areas are wool, livestock for slaughtering, rice, citrus fruits, peaches and nectarines, grapes, tomatoes, peas, beans and root vegetables. Rice growing was initiated on the Areas in 1924 and has since become the most important crop. In a normal season the water supplied for rice represents about half the total delivered to the Areas.

Other Irrigation Areas. The Coomealla, Tullakool, Buronga, Mallee Cliffs, Hay, Curlwaa and Coleambally Irrigation Areas follow the same administrative pattern as the Murrumbidgee Areas—that is, land transactions are administered by the Water Conservation and Irrigation Commission which is responsible also for the operation and maintenance of works to supply water.

Irrigation Districts

These districts are set up under the Water Act, 1912–1955 for (a) domestic and stock water supply and (b) irrigation. They differ from water trusts in that the cost of the works is not required to be repaid over a period, but annual charges are made by the State for water supplied to landholders.

Since the completion of the Hume Reservoir, several such districts have been established along the Murray to utilize the New South Wales share of the storage. Water is not available for the whole of the 5,000,000 acres adjacent to the Murray in New South Wales, and therefore the schemes are based on 'extensive' irrigation, that is, water rights are allotted to holdings on the basis that only a portion of each holding (one acre in three, five or ten, according to the district, etc.) will be irrigated, but additional water, when available, may be obtained by landholders. 'Water right' means right to such a quantity annually of water, 12 inches deep, as will cover an area of one acre.

Water to serve Berriquin, Denibootea and Denimein Districts is diverted through a main canal which is approximately 100 miles long. Water for the Wakool Irrigation District and the Tullakool Irrigation Area is diverted from the Edward River at Stevens Weir, and a supplementary supply is also obtainable from Mulwala canal. At 30 June 1965 the total length of completed canals and channels in Berriquin District was 997 miles, comprising Mulwala canal 75 miles, Berrigan channel 22 miles, subsidiary channels 785 miles, escape channels 105 miles, and cross drainage channels 10 miles. Off-take capacity of the Mulwala canal is 5,000 acre feet a day. Wakool, with 418 miles of channel, contains 315 holdings, and the area developed by irrigation

includes about one acre in six of the total area. Sheep raising is the main industry. Considerable subdivision has occurred within the Berriquin District, and the proportion of the total area developed for irrigation is higher than in the case of Wakool. Sheep (including fat lambs), dairying and wheat growing are the main industries.

Water Trust Districts, Irrigation Trusts and Flood Control and Irrigation Districts

The Water Act, 1912-1955 provides for the constitution of Trust Districts for domestic and stock water and irrigation, and empowers the Commission to construct, acquire or utilize necessary works. When the works are completed, they are handed over to trustees to administer. The trustees are elected by the occupiers of the land and act with a representative of the Commission. They are empowered to levy and collect rates covering the cost of the works repayable to the Crown by instalments and also the cost of operation and maintenance of the works. The rates are struck according to the area of land which benefits. The following are the water trusts, other than irrigation, as at present constituted (the area in acres of each district being shown in parenthesis): *Murray River*—Little Merran Creek (157,440), Bullatale Creek (68,320), Poon Boon (34,300), Minnie Bend Flood Prevention (2,190); *Murrumbidgee River*—Yanco, Colombo and Billabong Creeks (1,007,780); *Lachlan River*—Marrowie Creek (292,640), Torrigan, Muggabah and Merrimajee Creeks (170,240), Ulonga (64,960), Micabil Weir (11,500), Condobolin West Weir (4,480); *Miscellaneous*—Great Anabranch of Darling River (959,184), Nidgerly Weir (46,880), Algudgerie Creek (9,760), Collarenebri town water supply (117)—making in all a total area of 2,829,791 acres. Twelve of these trusts have been formed for the provision of water for domestic and stock purposes, one for a town supply and one for flood prevention.

Irrigation Trusts are established under the same Act and are administered by trustees in a similar way.

The Lowbidgee Provisional Flood Control and Irrigation District, the first of its kind, was constituted in 1945. Its purpose is to provide flood irrigation for pasture lands on the lower Murrumbidgee by water diverted from the Maude and Redbank Weirs. Another district, Medgun, near Moree in the north-west, is also in operation.

River, lake and farm water supplies

During recent years the numbers of licences and permits issued to individuals to draw water from rivers and lakes for irrigation have increased substantially, especially along the coastal streams in sub-humid districts where the value of supplementary irrigation is becoming more recognized as a means of stabilizing production in dry months. There has also been a considerable increase along the Murrumbidgee and Lachlan.

Under the Farm Water Supplies Act, 1946, technical advice and assistance, and also financial assistance, are made available to help individual farmers and groups of farmers to provide and improve water supplies for domestic, stock and irrigation purposes by means of wells, bores, excavated tanks, weirs or dams, flood and spray irrigation systems.

Underground water

Extensive use is made of artesian, sub-artesian, and shallow underground water. The Great Artesian Basin underlies an area of some 81,250 square miles in north-western New South Wales. Eighty-seven Bore Water Trusts and twelve Artesian Wells Districts have been constituted. Bore Trusts are administered in the same way as Water Trusts, but in Artesian Wells Districts the settlers maintain the drains. Bore Trusts and Artesian Districts cover 5,597,202 acres and distribute water through 3,673 miles of open earth drains. At 30 June 1965, 1,137 artesian bores had been constructed in the New South Wales section of the Basin. At that date 664 bores were flowing and were capable of producing about 62,500,000 gallons per day. Conservation measures control this to about 50,000,000 gallons per day. The total length of bore drains, including those for Trusts and Districts, is approximately 8,000 miles.

Of other structural basins of sedimentary rocks, e.g. Murray, Sydney, Oxley and Clarence Basins, the Murray is the largest and also the most important in that it affords stock water supplies over an extensive area of the south-western section of the State. Only a few of these bores flow, the remainder being sub-artesian. Good supplies for stock and, in some instances, small scale irrigation, are obtained from porous sandstone in the Moss Vale-Picton area, but the remainder has limited potential. Stock supplies are obtained from bores in the fringe zones of the Oxley Basin, but the centre of this basin lies under the Liverpool range. The Clarence Basin is relatively unimportant from a groundwater viewpoint, but stock supplies are obtained from some sections.

In other parts of the State the largest and best quality groundwater supplies are obtained from sands and gravels in the alluvium of the major rivers and their tributaries, particularly the western-flowing rivers, e.g. Lachlan, Macquarie and Namoi. Supplies of up to 80,000 gallons an hour are obtained from wells and screened bores in these areas and are used for irrigation

and town water supply. The Government is carrying out investigations to determine the groundwater potential of the alluvium of such valleys, particularly with regard to irrigation use, and a test-boring programme is in progress in the Lachlan Valley. Coastal river systems have a much more limited potential in this regard, the main exception being the Hunter. Old sand dune areas along the coast provide large supplies of good quality water. However, since the soils of these areas are not suited to agricultural pursuits, exploitation has been largely confined to the Sydney and Newcastle areas. Initially a source of Sydney's water supply, the Botany sands are now utilized mainly by industry. The Tomago sands provide a considerable proportion of the Newcastle water supply.

The older rocks, which are mostly folded and jointed, are very variable in their groundwater potential and only rarely do they yield supplies sufficient and suitable for limited irrigation. Where suitable conditions obtain, they yield useful stock supplies, mostly at depths between 50 and 250 feet.

A license under the Water Act, 1912-1955 is required for all bores sunk in any part of New South Wales and details of over 20,500 bores and wells in the State are recorded. When assessed in relation to the geologic and topographic conditions of any particular area, such records provide valuable evidence of the groundwater potential and are thus of considerable benefit to landholders.

Future programme

The programme of development in hand includes the provision of additional dams and storages, diversion weirs, and flood mitigation and river protection works in various parts of the State. Construction of Burrendong Dam on the Macquarie River is nearing completion, and work has commenced on a dam at Blowering on the Tumut River. Legislation has been passed authorizing the construction of a flood control and irrigation dam at Warkworth in the Hunter Valley. The Hunter River development, of which Glenbawn Dam is an integral part, concerns an exceptionally fertile coastal valley, forming the hinterland to Newcastle, where the annual rainfall is not heavy and variations from month to month are considerable. This is the first coastal scheme initiated in New South Wales. At Wyangala Dam, on the Lachlan River, the fixed crest of the dam spillway has been lowered temporarily to enlarge the spillway for passage of greater floods. Construction has commenced on a new earth and rock-fill dam which will be built behind the present dam to give a storage of 1,000,000 acre feet. Within the new Coleambally Irrigation Area further development of farms has been carried out and water is being supplied by the new diversion weir at Gogeldrie. At 30 June 1965, 194 large area farms and 12 horticultural farms had been allotted.

Victoria

Particulars of the rainfall pattern of Victoria were given on page 1117 of Year Book No. 37. (See also the chapter Physical Geography and Meteorology of this issue.)

Administration

Victorian Governments have been active in the development of country water supplies since the 1860's when major works to supply the Bendigo goldfields were undertaken. Local trusts to construct and operate waterworks under Government supervision were provided for in the *Water Conservation Act* 1881. Development under the trust system was greatly stimulated by the *Irrigation Act* 1886 which provided for the construction of national headworks by the State, and vested in the Crown the right to the use and control of all surface waters. By 1900 there were 33 irrigation trusts and 18 other rural water supply trusts, but the system of local control was then breaking down under financial difficulties.

The *Water Act* 1905 established the State Rivers and Water Supply Commission to take over the Irrigation Trust districts (except the still-existing First Mildura Irrigation Trust) and to exercise the State's functions in the further control and development of surface waters outside the metropolis. The Commission now supervises all private diversions from streams and directly administers irrigation districts covering 2,250,000 acres, rural waterworks districts covering 7,000,000 acres, drainage and flood protection districts covering 170,000 acres, and urban water supplies serving 200,000 people. It also supervises the activities of local urban water supply authorities supplying 600,000 people in more than 200 towns, as well as 80 local sewerage authorities and 25 drainage and river improvement authorities.

Works summarized

Since the State Rivers and Water Supply Commission began its operations in 1906 the capacity of storages under its control has been increased from 172,000 acre feet to 4,542,420 acre feet. In addition, Victoria has in effect a half share in River Murray Commission storages totalling 2,722,840 acre feet, bringing total capacity available to Victoria at 30 June 1965, to 5,903,840 acre feet. Most of the water used from these storages is for irrigation. The area irrigated has

increased from 105,000 acres in 1906 to 1,189,055 acres in 1964-65. Irrigation deliveries in 1964-65 totalled 1,859,173 acre feet. The value of irrigation production in 1963-64 was estimated at \$153,000,000, about one-fifth of Victoria's total rural production. Of the total irrigation production about one-fifth was from lands irrigated by 'private diverters' i.e., irrigators who are authorized to take water from streams, lakes, etc., but who do not come within the boundaries of an irrigation district.

Storages

Capacities of storages (in acre feet) at 30 June 1965 were as follows:

Goulburn System—Eildon, 2,750,000; Waranga, 333,400; total 3,104,100;

Murray System—half share of Murray storages, 1,361,420; Lake Buffalo, 19,500; total, 1,423,780;

Loddon System—Cairn Curran, 120,600; Tullaroop, 60,000; total, 266,450;

Campaspe River—Coliban storages, 62,730; Eppalock, 252,860; total, 315,590;

Wimmera-Mallee Systems—Rocklands, 272,000; total, 563,800;

Gippsland-Glenmaggie—154,300; total, 154,340;

Werribee-Bacchus Marsh—total, 34,900;

Mornington Peninsula—total, 17,640.

Nature of irrigated culture

The following table shows the areas irrigated in the various irrigation systems in 1964-65, and corresponding particulars for the State as a whole during the seasons 1960-61 to 1964-65.

AREA OF LAND IRRIGATED: VICTORIA, 1960-61 TO 1964-65

(Source: State Rivers and Water Supply Commission)

(Acres)

Season and system	Cereals	Fodder crops		Pastures			Vine- yards	Orch- ards	Market gardens	Fallow and miscel- laneous	Total
		Lucerne	Other	Native	Sown						
					Annual	Peren- nial					
1960-61	7,940	39,872	10,239	67,014	358,727	395,596	44,817	40,274	21,735	20,966	1,007,180
1961-62	27,586	41,253	16,468	69,505	421,277	409,648	44,563	42,671	22,197	22,732	1,117,900
1962-63	26,113	43,180	22,820	61,317	418,025	440,360	45,757	43,059	22,634	28,290	1,151,555
1963-64	14,878	42,878	21,031	41,360	427,160	453,986	45,257	43,891	24,422	22,378	1,137,241
1964-65—											
Goulburn-Camp- aspe-Loddon	3,694	19,123	8,391	25,673	243,787	192,707	371	23,542	3,253	11,657	532,198
Murray—											
Torrumbarry	3,213	3,815	3,102	17,274	117,844	73,995	4,779	1,369	831	2,699	228,921
Murray Valley											
Irrigation Area	225	7,167	538	1,406	53,264	45,621	115	6,405	373	329	115,443
Pumping(a)	141	788	192	310	224	112	38,386	3,303	107	759	44,322
Total, Murray	3,579	11,770	3,832	18,990	171,332	119,728	43,280	11,077	1,311	3,787	388,686
Other northern systems.	46	1,248	..	686	1,511	10,530	..	3,410	478	99	18,008
Southern systems	59	1,257	197	3,184	556	62,636	..	618	5,438	344	74,289
Private diversions											
(b)	670	8,922	1,696	2,677	26,041	99,033	4,127	6,096	16,404	10,208	175,874
Total, 1964-65	8,048	42,320	14,116	51,210	443,227	484,634	47,778	44,743	26,884	26,095	1,189,055

(a) Includes First Mildura Irrigation Trust. (b) Excludes private diverters in the Torrumbarry System, but includes all other private diverters along the Murray River.

Irrigation systems

Goulburn-Campaspe-Loddon. The principal storage for Goulburn waters is Lake Eildon, which was completed in 1956, submerging the original 306,000 acre feet Eildon storage completed in 1927. For the distribution of additional supplies available from Eildon and from other new storages on the Loddon and Campaspe rivers it has been necessary to undertake major enlargements in the distribution system by a long term programme of channel works which is still in progress. Deliveries have already increased from 395,000 acre feet in 1954-55 to 758,000 in 1964-65. Goulburn river water is diverted to the irrigation areas by gravitation from the pool

formed by the Goulburn Weir, near Nagambie, completed in 1890 as a State work. The East Goulburn main channel of 1,000 cusecs capacity supplies the areas around Shepparton. Two 1,500 cusec channels to the west convey water to the off-river Waranga Reservoir and supply part of the Rodney area through offtakes on the way. From Waranga Reservoir there are two main outlets, one supplying the western part of the Rodney area and the other, of 1,200 cusecs capacity, supplying the Waranga Western Main Channel, which runs more than 100 miles west across the Campaspe and Loddon valleys to Boort.

Flows in the Waranga western main channel are augmented by the injection of Campaspe water through a pumping station of 200 cusecs capacity near Rochester. Supply to the Tragowel and Boort areas is augmented by gravitational diversion of Loddon water.

The gross area of holdings in the Goulburn-Campaspe-Loddon systems is 1,351,460 acres. The main products are dairy produce, fruit, wool and fat lambs. Annual production of deciduous canning fruits in the eastern part of the system is about two-thirds of Australia's total.

Murray River system. Water is diverted from the Murray by gravity at the Yarrawonga Weir for the Murray Valley Irrigation Area and at the Torrumbarry Weir for the Torrumbarry irrigation system which extends to Swan Hill. Holdings in the Murray Valley area total 301,818 acres, devoted mainly to dairying, fat lambs and canning fruit. Holdings in the Torrumbarry system total 365,199 acres, devoted mainly to dairying and the production of fat lambs, with a concentration of vineyards, orchards and market gardens around Swan Hill.

Downstream from Swan Hill there are five districts supplied by pumping: the district of the First Mildura Irrigation Trust, and the four Commission districts of Nyah, Robinvale, Red Cliffs and Merbein. These districts together serve 80,763 acres, producing mainly dried vine fruits, with some citrus fruit and table and wine grapes.

Southern systems. The Macalister district, covering 130,582 acres around Maffra and Sale, is supplied from the Macalister River, regulated by Lake Glenmaggie, and from the unregulated flow of the Thomson River. Dairy farming is the principal activity. The Bacchus Marsh and Werribee Districts, supplied from storages in the Werribee River only twenty miles west of Melbourne, cover 16,342 acres intensively developed for dairying and vegetables.

Wimmera-Mallee domestic and stock supply system

Storages in the Grampians in south-west Victoria ensure farm water supplies over an area of 11,000 square miles extending northward through riverless pastoral and cereal lands to the Murray. Farm dams throughout this region, which covers one eighth of the total area of the State, are filled once each year, in the winter-spring season, through the medium of 6,500 miles of Commission channels and 3,000 miles of private channels. Without this supply, occupation of the region would be extremely hazardous. Headworks storage capacity is now being increased from 563,800 acre feet to 627,400 acre feet by construction of Lake Bellfield. Forty-seven towns, with a population of 40,000, receive their supply from the same system. Near Horsham, which is close to headworks in the south, a supply is maintained for the irrigation of an area of 7,000 acres, mainly for dairying.

Drainage, flood protection and river improvement

The largest work in this category undertaken by the State Rivers and Water Supply Commission is the Koo-wee-rup-Cardinia flood protection district embracing 80,000 acres of a continuous depression along the seaboard of Westernport. Once useless, indeed a hindrance to communication, this area now yields primary products worth several million pounds each year.

By the *River Improvement Act* 1948, the formation of local river improvement and drainage trusts under the supervision of the Commission has been greatly facilitated and, since 1950, 24 such trusts have been formed. The importance of river improvement work is expected to continue to grow.

In 1963 the Dandenong Valley Authority was created, by special legislation, with jurisdiction over the whole catchment of the Dandenong Creek (300 square miles) for purposes of arterial drainage, river improvement and flood protection. The Authority will in due course take over the Commission's Carrum Drainage District.

Finance

The net capital liability of the Commission at 30 June 1965 for works under its direct control was \$252 million. Of this amount, \$168 million was expended for irrigation and \$24 million for rural, domestic and stock supplies, the costs being borne entirely by the State. The total liability for urban supply was \$40 million, shared about equally between the State and the districts concerned. The remaining \$20 million was for expenditure on flood protection and drainage districts (\$4 million), and items such as loan flotation expenses, miscellaneous surveys and investigations, and buildings, plant and stores (\$16 million).

Underground resources

Underground water. The investigation, exploration and survey of underground water resources in Victoria is carried out jointly by the State Rivers and Water Supply Commission and the Department of Mines. The Commission is concerned mainly with investigation of shallow waters in irrigation districts, while the Department covers all other work, including exploratory drilling to 5,500 feet. Underground water is the only available source of supply other than rain in some areas of the State. It is of particular importance in the western portions of the Wimmera-Mallee districts where annual rainfall ranges between 10 and 20 inches and there are no surface streams. Elsewhere underground water is used to supplement surface supplies and in places it may be the only developed source for town, industry, rural, domestic, stock or irrigation use.

The Wimmera and Mallee districts are situated over part of the Murray Basin where, to the west of the Wimmera River, Miocene marine limestones form an aquifer with water suitable for town supply and irrigation. It is used for this purpose at Kaniva, Murrayville and Nhill where yields between 10,000 and 60,000 gallons per hour may be obtained. North of Murrayville and Underbool the water in the limestones is more saline and in the extreme north it is too saline even for stock use. East of the Wimmera River to Lake Tyrrell and north of Swan Hill the marine rocks consist of marls and silts with calcareous beds capable of yielding saline water at less than 1,000 gallons per hour. These aquifers are not developed. Lower Tertiary swamp, deltaic and estuarine carbonaceous and ligneous sediments underlie and extend eastward of the marine rocks. Sands in these sediments contain water of greater or lesser salinity than that of the marine deposits. Yields from the estuarine aquifers are not known, but exploration and testing by the Victorian Mines Department are in progress. Overlying the marine and estuarine sediments there are aquifers consisting of Pliocene to Pleistocene terrestrial, fluvial and lacustrine sands and sandstones. Yields from these rocks are limited to windmill supplies. The quality is variable and in the north-west highly saline. East of the Avoca River the deposits of the Murray Basin are entirely non-marine and consist of terrestrial, fluvial and lacustrine gravels, sands, silts and clays to a maximum depth of about 600 feet. Water from the sands and gravels is of variable quality. In places it is too saline for stock use, but the quality improves towards the east and it is used for town supply at Katunga and Wangaratta, and at Barnawartha, Bright and Chiltern where the deposits partly fill valleys in the bedrock of the highlands.

In the Otway Basin in the south-west of Victoria the Upper Cretaceous-Lower Tertiary sands have been developed for underground water supplies to Portland, Heywood, Port Fairy, Peterborough, Port Campbell and Timboon. In the central (Warrnambool and Koroit) and northern parts of the basin the waters are suitable only for stock. In the areas of better quality water the depth of the aquifers (2,000–4,500 feet) renders their development uneconomic except for town supply and industry. Oligocene to Miocene marine limestones occur in the south-central and western portions of the basin. The salinity of the water in the limestones is often less than that of the water in the sands beneath, but the limestone waters are generally hard. They are used in part to supply Portland and also for irrigation. Small underground water supplies are obtained from the Pliocene-Pleistocene deposits of ferruginous sands, marine sandy limestones and dune limestones in the west and from the dune limestones along the coast between Warrnambool and Portland.

In and around the structural depressions of the Port Phillip and Western Port Bay districts there are several small areas where underground water of good quality occurs. Among these are the Lower Tertiary sand aquifers at Anglesea which have not been developed as yet (1965); the Middle Miocene sands, shelly silts and limestones which have been developed for market garden watering south-east of Melbourne; and the Pleistocene sands and shelly silts on the Nepean Peninsula where the water is used for market gardens and pasture.

Irrigation. Brackish waters in the Eocene to Oligocene sands under the Werribee Plains have some potential for industrial use. The Western Port area has yielded large supplies of water from Tertiary marine and non-marine sands, and from fractured fresh basalt in some areas. Extensive use is made of water from the sands for irrigation of pastures and cash crops in the Koo-wee-rup Swamp area. Yields of up to 30,000 gallons per hour are common. In the Lang Lang area the water is used for town and industrial supply, but not as yet for irrigation. Stock supplies with one or two minor exceptions are available at shallow depth over the whole of the area.

The Gippsland Basin contains two main groups of water-bearing rocks, viz. the Lower Tertiary coal measures and marine sands, and the Upper Tertiary sands and gravels. Water from the Lower Tertiary rocks is frequently high in bicarbonate and therefore soft. It is used for irrigation at Bairnsdale and Yarram, and some abnormally hot water is used for industrial purposes at Maryvale. The Upper Tertiary rocks yield large quantities of very good quality water, mainly in the east-central part of the basin, where it is used extensively for irrigation. Stock supplies are generally available at shallow depth in rocks of various types and ages.

The pre-Upper Cretaceous sedimentary and igneous rocks of the highland areas generally yield small supplies of water suitable for stock. Exceptions to this are the Devonian sandstones of the Grampians where large supplies of good quality water may be obtained, and the better quality waters suitable for domestic use from the higher rainfall area of the Eastern Highlands of the State.

The Lower Tertiary volcanic rocks, mainly basalts, yield large supplies, up to 15,000 gallons per hour where the basalt is well jointed and little weathered, but only small quantities where the rocks are weathered. Where yields are large as in the west and south-west of Gippsland and on French Island the water quality generally is suitable for irrigation, but on the Bellarine and Mornington Peninsulas, Phillip Island and at Cranbourne the small yields of water are suitable for limited stock use only. Pliocene to Pleistocene volcanic rocks, basalts with tuffs and agglomerate occur extensively over the Werribee Plains and Western District and in valleys in the western half of the Central Highlands. Yields from these rocks are variable, the maximum recorded being 16,000 gallons per hour. From the weathered basalt yields are usually less than 1,000 gallons per hour. The quality is generally suitable only for stock but may be suitable for irrigation. Underground water derived from the later basalts of the stony rises west of Colac usually has high nitrate content.

Future programme

In July 1963 the Government announced plans for a long-term storage programme to cost a total of \$75 million between 1963-64 and 1973-74. Three storages, namely Chowilla Reservoir (a River Murray Commission Storage), Lake Buffalo, and Lake Mokoan, appear in the list of dams and reservoirs projected in the table on page 161.

Other works are:

- (a) Lake Bellfield on Fyans Creek (Grampian Mountains) to supplement the supply to the Wimmera-Mallee system (*see* page 175);
- (b) An extensive channel enlargement and remodelling project in the Goulburn system (*see* page 174);
- (c) Tarago Reservoir on the Tarago River to supplement supply to the Mornington Peninsula area;
- (d) Nillahcootie Reservoir on the Broken River below Mansfield, to be used for irrigation;
- (e) Lake Merrimu on Coimadai Creek, to be filled mainly from the Lerderderg River and Goodmans Creek, and used to supplement irrigation water supplies at Werribee and Bacchus Marsh; and
- (f) Corop Lakes, two natural lakes near Rochester to be used as an adjunct to Waranga Basin for off-river storages for irrigation.

Queensland

Particulars of the rainfall pattern of Queensland are given in Year Book No. 37, page 1122. (*See also* the chapter Physical Geography and Meteorology of this issue.)

Administration

In Queensland, the right to the use and flow of non-tidal surface water contained in, or flowing through or past, the land of two or more occupiers, and all artesian and sub-artesian water vests in the Crown. Subject to certain reservations for local authority and other purposes, such water is controlled by a Commissioner of Irrigation and Water Supply. Private diversions from watercourses, artesian wells and, in certain declared areas, sub-artesian wells, are subject to licence by the Commissioner. Dams and weirs are constructed by the Commissioner to safeguard supplies in streams from which private pumping for irrigation takes place, and also to provide water for irrigation areas established by the Commissioner. For a description of the development of the present administration *see* Year Book No. 42 and earlier issues.

Irrigation—extent, systems and methods

In Queensland sugar cane represents in value nearly half the total agricultural production of the State. In 1964-65, 20 per cent of the sugar cane acreage was irrigated representing 43 per cent of the total area irrigated in the State. Tobacco is another major crop, and the area irrigated during 1964-65 represented 96 per cent of the total plantings.

Most irrigation in Queensland is undertaken by farmers operating under licence to obtain water by pumping from streams or from natural underground storages. Over half the total area irrigated in Queensland is supplied from underground water. The main areas where these supplies have been developed extensively are the Burdekin Delta (Ayr-Home Hill area), the Pioneer Valley, Callide Valley, Lower Burnett (Bundaberg area), Lockyer Valley and Redland Bay.

Furrow irrigation is used for cotton, sugar cane, some tobacco, and miscellaneous row crops. Spray irrigation is used widely on fruit, vegetables, fodder crops, and the major part of the tobacco crop. Irrigation is required round-the-year for most of Queensland, as the timing and duration of the summer 'wet' season are too variable to enable a definite non-irrigation season to be fixed, as can be done in southern States.

AREA OF LAND IRRIGATED: QUEENSLAND, 1960-61 TO 1964-65

Season and division	No. of irrigators	Area irrigated (acres)							
		Vegetables	Fruit and vineyards	Sugar cane	To-bacco	Cotton	Other crops	Pastures	Total
1960-61	7,932	29,698	5,758	68,987	13,789	2,675	50,139	15,651	186,697
1961-62	8,433	32,139	6,537	74,541	13,671	2,040	59,947	20,544	209,419
1962-63	8,562	34,258	7,020	81,506	15,801	2,206	58,029	22,341	221,161
1963-64	8,930	36,329	7,315	98,204	15,079	2,717	65,078	27,360	252,082
1964-65									
Southern Queensland	6,510	29,071	6,910	38,944	2,450	2,073	55,709	22,289	157,446
Central Queensland	668	1,119	277	210	22	2,033	12,336	2,747	18,744
Northern Queensland	2,132	4,830	905	81,402	10,698	42	3,589	3,188	104,654
Total, 1964-65	9,310	35,020	8,092	120,556	13,170	4,148	71,634	28,224	280,844

Areas under private irrigation

In two important areas irrigation has been developed by private pumping. In the Lockyer Valley, 30 miles west of Brisbane, about a third of an estimated total irrigable area of 60,000 acres is under irrigation. The valley comprises an extensive flood plain where heavy black alluvial soil thickly overlies gravels and sands carrying water suitable for irrigation, which is necessary for continuous agricultural production. A number of small weirs with a total storage of 1,340 acre feet have been constructed on Lockyer Creek by the Irrigation and Water Supply Commission; these also tend to augment and conserve underground supplies. The Lockyer Valley produces a substantial proportion of Queensland's onions, potatoes, pumpkins, lucerne, hay, green fodder, maize and dairy products.

The other important area is the fertile delta region of the Burdekin River, where the irrigated area is over 56,000 acres. The delta has ground water supplies at shallow depth, and these have been tapped to obtain supplies in the dry periods of the year. Sugar is the main crop irrigated, together with citrus fruits, pineapples, vegetables and tobacco. In 1940 the Burdekin River Trust was formed to safeguard the sugar areas of the delta from erosion and floods, and an irrigation research station studies the development of pastures and crops. In May 1965 the North Burdekin Water Area and Water Board were constituted for the purpose of utilizing part of the flow of the Burdekin River to replenish the subterranean water supplies of the northern part of the Burdekin Delta. A similar proposal for the South Burdekin Delta is at present under consideration.

Government irrigation areas and projects

The Irrigation and Water Supply Commission has constructed and operates four dams and forty-two weirs with a storage capacity of 529,626 acre feet. Water from these storages supplies the following four irrigation areas operated by the Commission and supplements numerous streams from which pumping for private irrigation takes place.

Mareeba-Dimbulah Irrigation Area. In 1952 an irrigation undertaking was established to assist tobacco production in the valleys of the Walsh and Barron Rivers. Tinaroo Falls Dam on the Barron River (330,000 acre feet) has been completed, and construction is proceeding on irrigation works to serve 78,000 acres (comprising 910 tobacco farms and 180 mixed farms) of which 49,000 acres will be irrigated. One hundred and sixty-five miles of channels have been constructed, and irrigation water from the dam is available to 549 farms. Tinaroo Falls Dam is also providing a regulated flow of water in Barron River at Kuranda for the generation of hydro-electric power at Barron Falls.

Burdekin River Irrigation Area. The Clare, Millaroo and Dalbeg sections of the Burdekin River Irrigation, Hydro-electric and Flood Mitigation Project have been completed. Located from twenty-five to sixty-five miles from the mouth of the Burdekin, these areas comprise 18,862 acres and obtain water from central pumping stations drawing from the river. Two storages of 7,670 acre feet and 2,550 acre feet capacity have been constructed about seventy-nine miles and seventy-two miles respectively from the mouth of the river. Originally developed for tobacco production, the growing of sugar cane is expected to predominate in future years.

Dawson Valley Irrigation Area. A scheme for the development of the Dawson Valley providing for the irrigation of 70,000 acres was inaugurated in 1923, but work was discontinued after three weirs had been built in this area. Their total storage is 10,280 acre feet, covering about sixty-one farms (4,894 acres) in production. Dairy products and cotton account for the major part of the production from irrigated areas. Further development of the scheme is dependent on the provision of additional storage works.

St. George Irrigation Area. This area comprises nineteen farms, of which a maximum of 3,275 acres can be irrigated from a weir on the Balonne River (8,200 acre feet). Fat lambs, wool, and fodder and cotton crops are the main products.

Several additional projects have recently been completed and work is in progress on others. Moogerah Dam (Warrill Valley Project) on Reynolds Creek (73,000 acre feet) is capable of serving some 11,000 acres of the Warrill Valley, and will provide water for the thermal power station now under construction at Swanbank, near Ipswich. Borumba Dam (Mary Valley Project) on Yabba Creek (34,500 acre feet) makes water available to maintain the town water supply for Gympie and allows extension of the area irrigated from the Mary River to about 18,000 acres. Callide Dam (37,800 acre feet) on Callide Creek, 9 miles upstream from Biloela, will provide cooling water for the Calcap power station and compensation water for maintenance of underground supplies along Callide Creek; provision has been made to increase the storage capacity to 87,000 acre feet. Leslie Dam (Upper Condamine Project), nearing completion on Sandy Creek, will have an initial capacity of 38,500 acre feet, with provision for later increase to 87,000 acre feet. Water from the dam will be available for irrigation of sections of the Darling Downs downstream the Condamine River as far as Cecil Plains and for a supply to the city of Warwick. A 61,000 acre feet dam under construction at Coolmunda (Macintyre Brook Project) will allow irrigation of up to 8,000 acres. Wuruma Dam (Upper Burnett Project), under construction on the Nogo River, will have a storage capacity of 157,000 acre feet for irrigation of 11,000 acres along 100 miles of the Burnett River. The Eungella Dam (Bowen-Broken Project), under construction on the Broken River, will have a storage capacity of 104,000 acre feet. It will provide cooling water for the Collinsville power station and irrigation water along the Bowen and Lower Burdekin rivers. The development of rivers constituting portion of the Queensland-New South Wales border, under the authority of the Dumaresq-Barwon Border Rivers Commission, is described on pages 166-7.

Underground water—Great Artesian Basin and other sources

The use of underground water supplies has been a very important factor in agricultural and pastoral development in Queensland. The Great Artesian Basin is the major source of stock water supplies over more than half the State. Elsewhere, supplies obtained at shallower depths, in porous, fractured or fissured rocks, are extensively used for domestic and stock purposes. Underground water also supports more than half the irrigated area in the State, supplies being obtained chiefly from alluvial formations along river valleys, and from river deltas, the most conspicuous example of which is the Burdekin River (see page 178).

Great Artesian Basin

Western Queensland, beyond the 20 inch rainfall belt, is predominantly pastoral and is mainly dependent for water supplies on artesian and sub-artesian bores and, where surface storage is not readily available, on excavated tanks. The Great Artesian Basin in Queensland corresponds approximately with the area lying west and south of the Great Dividing Range, excluding the Cloncurry mineral field and the Barkly Tableland. It comprises 421,000 square miles or nearly two-thirds of the total State area of 667,000 square miles.

Artesian water. Although the number of bores has gradually increased over the years, the total flow of all bores has declined from the peak flow of 351 million gallons a day. A report on the nature and structure of the Great Artesian Basin, presented in 1954, indicated that the output would continue its decline during the next sixty years, at which stage the flow from the remaining flowing bores would be of the order of 110 million gallons a day. The discharge from windmills, springs and other leakages, together with the underflow past the Queensland borders, would then be about 20 million gallons a day. It was further expected that the total discharge, of the order of 130 million gallons a day, would be in equilibrium with the recharge of the basin. It was anticipated that numbers of bores on higher ground would cease to flow during the next sixty years and the area served by the flowing bores would contract by perhaps twenty per cent.

Up to 30 June 1965, 2,899 artesian bores had been drilled, of which 1,893 were still flowing. The total depth drilled amounted to 4,049,041 feet and the estimated daily flow was 199 million gallons. Although very few bores exceed 2,000 feet in depth (the average depth is 1,397 feet) and a new bore greater than 4,000 feet deep is exceptional, the deepest bore recorded was sunk to 7,009 feet. Some bores which had been classified as 'ceased' have been inspected and found to be still flowing, while other ceased bores have responded to deepening and have recommenced flowing. Both the pressure and flow of artesian bores are steadily diminishing, the rate of decrease varying widely throughout the basin. Present average rates of diminution are: pressure, 1-2 feet of head; total flow, 2-3 per cent. per annum. The greater part of the artesian discharge is distributed by some 15,500 miles of open earth channels, from which a large proportion of water is lost by soakage and evaporation, less than 10 per cent being actually used by stock.

Although artesian beds underlie a large area of the State, only 79,000 square miles are primarily watered by bore drains. The remaining area is watered by artesian bores (with small or no flow and limited drains), sub-artesian bores, excavated tanks, dams and natural waterholes. In many districts artesian bores do not provide economical watering facilities because of depth, limited area to be watered, and difficult terrain for distribution of water by drains. The quality of artesian water from the greater part of the basin is not suited for prolonged use for irrigation on most soils, nor are the supplies sufficient for both large scale irrigation and stock-watering. Practically the whole of the final steady-rate discharge from flowing bores will be needed for the watering of stock.

Shallower supplies, which come from beds unconnected with artesian beds, are of variable quality and volume. These supplies are available at depths of less than 1,000 feet over a large area of the basin. Some 11,651 sub-artesian bores within the Great Artesian Basin have been registered in Queensland. An important practical consideration is that the main artesian beds are continuous and the sub-artesian beds are not continuous.

Bore Water Areas. The constitution of Bore Water Areas was inaugurated in 1913 to aid pastoral settlement in districts where large flows were available at a cost beyond individual capacity, and to conserve artesian supplies by fully utilizing flows from the existing bores on the land resumed for closer settlement. Bores and drains are constructed from loan funds repayable over a period of years. The areas are administered by local boards or by the Commissioner of Irrigation and Water Supply, acting as a board. Rates are levied to meet interest, redemption, maintenance and administration costs. Statistics for the year 1964-65 are: areas constituted, 74; administered by the Commissioner, 55; administered by local boards, 6; number abolished, 13; area benefited, 4,086,056 acres; average rate per acre, 1 64d. (1. 37c); number of flowing bores, 56; total flow, 24,821,000 gallons a day; drains served, 2,510 miles.

Other underground sources

Outside the Great Artesian Basin, ground water supplies can conveniently be divided into two broad groupings, (a) those obtained in porous, weathered, fissured or fractured rocks, and (b) those obtained in unconsolidated sediments of Cainozoic age. In the first group, supplies, often within short distances, are widely variable both in quantity and quality, but are normally sufficient only for stock-watering purposes. Because storage is generally small, seasonal fluctuation of water level tends to be high, and this can have a significant effect on the supply available during dry seasons. Small to moderate irrigation supplies (up to a few thousand gallons an hour) are sometimes obtained and, in exceptional cases, particularly with basalts and limestones, supplies may be as much as 10,000 gallons an hour. The second group comprises the main irrigation supplies and, although a wide range may be found in the supply normally available from individual bores in any area, pumping rates as high as 10,000 gallons an hour are common. The availability of underground water has been investigated in a considerable number of alluvial valleys in south eastern Queensland and in a number of coastal areas, particularly in the vicinity of the estuaries of the Burnett, Pioneer and Burdekin Rivers, where underground water is the main source for irrigation of sugar cane.

Reference has already been made to the importance of underground water for irrigation in the Lockyer Valley (see page 178), and other areas in which irrigation supplies from alluvial formations have been extensively utilized include the Callide Valley, the Monto area, parts of Barker and Baranbah Creeks, Warrill Creek, Cressbrook Creek, the Upper Logan River, and parts of the Condamine River and its tributaries. Government authorities do not normally undertake private drilling for landholders, but assistance is given in the location and development of ground water supplies through the provisions of *'The Farm Water Supplies Assistance Acts, 1958 to 1965'* (see page 181). This assistance has considerably accelerated the use of underground water for irrigation, and there is no doubt that there are many areas with a large potential for future expansion.

Stock watering

A predominant interest in the field of water conservation has been the provision of stock and domestic water supplies in Queensland's great pastoral areas, which contain more than a third of the Commonwealth's cattle and about a seventh of the sheep. In addition to the stabilization of water supplies in the pastoral areas, the provision of water along stock routes for travelling stock has received much attention in recent years.

Main stock routes. The Queensland Irrigation and Water Supply Commission acts as consultant and constructing authority to the Stock Routes Co-ordinating Board for watering facilities on stock routes. On completion, facilities are vested in local authorities for control and maintenance. From 1935, when the scheme was inaugurated, to 30 June 1965, 635 facilities had been completed, and at 30 June 1965, 33 facilities were under construction or investigation. A State-wide investigation is being carried out by the two authorities mentioned above to ascertain the general movement of stock, determine primary and secondary routes, register existing water facilities, and formulate a co-ordinated plan in regard to the provision of new watering facilities.

Channel Country stock routes. Under the *State Grants (Encouragement of Meat Production) Act 1949-1954* the Commonwealth Government agreed to meet half the cost of providing additional watering facilities in stock routes leading into, along, and out of, the Channel country and on the route from Camooweal to Mount Isa. These routes connect with the main far-western route included in the State scheme inaugurated in 1935. This scheme was completed during 1962-63. The total number of watering facilities constructed since the commencement of the scheme was 37, at a total cost of \$599,184.

Technical and financial assistance to farmers

'*The Farm Water Supply Assistance Acts, 1958 to 1965*' are designed to improve the standard of water supply installations on individual holdings, encourage greater development of individual irrigation schemes, provide greater stability of production, and avoid losses in time of drought as well as generally increase production. To achieve this purpose, the Acts authorize the provision of technical and financial assistance to landowners for the investigation, design and installation of approved works of farm water supply. All projects for which finance is provided under the Acts are carried out under Commission supervision, and for the payment of a small charge the Commission will supervise the construction of works designed by its staff, but for which the landowners do not require financial assistance under the Acts.

During 1964-65, 1,013 requests (665 for technical assistance only, and 348 for technical and financial assistance) were dealt with in addition to advice on a further 475 requests on ground-water supplies. An amount of \$1,041,390 was approved for advances under the Acts in 1964-65, and the amount advanced was \$783,612.

South Australia

Brief particulars of the climatic conditions in South Australia are given on page 1129 of Year Book No. 37. (See also the chapter Physical Geography and Meteorology of this issue.)

Administration

Water supplies, other than irrigation works, are under the control of the Engineering and Water Supply Department, which administers the Waterworks Act, 1886 governing the supply of water through mains in water districts for townships and farm lands. The Water Conservation Act, 1886 provides for the construction of storages in non-reticulated areas, and authorizes the Minister concerned to 'divert and impound the water from any streams or springs or alter their courses, and take water therefrom, or any other waters as may be found in, under, or on, any land entered upon for the purpose of supplying water to the inhabitants of any water district'.

Early in the history of the State, the rights to all running streams, springs and soaks were vested in the Crown. The Water Conservation Act was passed in 1886 and, up to 30 June 1965, more than 550 dams, tanks and rainsheds, together with 460 wells and 340 bores, had been built or acquired by the State at a total cost of \$3,721,800. The rainsheds are timber frameworks roofed with galvanized iron to collect rainfall, which is delivered to storage tanks and is available for surrounding settlers and travellers. Rainshed catchments vary from a few hundred square feet to four acres in extent. Over most of the State extraordinary precautions are taken to counteract evaporation, and pipelines in preference to open channels and covered storages are used for this purpose. Meters are attached to practically all services to check usage by individual consumers.

Irrigation

Australian irrigation originated in the upper Murray of South Australia and the Mildura area of Victoria. South Australian irrigation commenced with an agreement between the Government and the Chaffey brothers in 1887 whereby an area of land at Renmark was made available for the establishment of certain irrigation works. In South Australia, irrigation is almost exclusively confined to the Murray Valley. Except for that held in various lock pools, no water from the Murray is stored in South Australia. Water is either pumped onto the land or gravitated from the river.

The two major authorities administering irrigation areas are the Department of Lands and the Renmark Irrigation Trust. The Trust is controlled by a local board of management consisting of seven members. This area differs from other South Australian irrigation areas in that the land is freehold instead of leasehold and is self-contained and self-controlled. Every settler is entitled to vote for the election of Trust members. The Trust maintains 100 miles of reticulation channels.

The following table shows particulars of the areas of crops and pastures irrigated in the various areas during 1964-65 and in South Australia as a whole during the seasons 1960-61 to 1964-65.

AREA OF LAND IRRIGATED: SOUTH AUSTRALIA, 1960-61 TO 1964-65
(Acres)

Season and authority	Vine fruits	Tree fruits	Citrus fruits	Other crops(a)	Pastures	Total
1960-61	26,071	22,706		34,198	19,048	102,023
1961-62	27,167	25,236		36,653	19,344	108,400
1962-63	27,384	26,876		36,745	21,808	112,813
1963-64	27,954	28,787		38,193	22,936	117,870
1964-65—						
Department of Lands Irrigation Areas—						
Orchard land—						
Berri	4,774	1,335	1,656	..	..	7,765
Cadell	508	230	197	..	..	935
Waikerie	1,654	805	1,437	..	..	3,896
Cobdogla	4,304	273	344	..	..	4,921
Moorook	264	145	263	..	..	672
Kingston	176	85	299	..	..	560
Mypolonga . . . . .	..	312	468	..	..	780
Chaffey-Ral Ral Division	801	238	23	..	..	1,062
Cooltong Division . . .	2	20	3	..	..	25
War service land settlement—						
Chaffey-Cooltong Division	392	37	549	..	..	978
Loxton	3,269	918	2,191	..	..	6,378
Cobdogla-Loveday Division . . .	248	39	40	..	..	327
Reclaimed swamp land—						
Monteith . . . . .	..	..	..	..	992	992
Mypolonga . . . . .	..	..	..	..	1,306	1,306
Wall . . . . .	..	..	..	..	517	517
Murray Bridge-Burdett Division . . .	..	..	..	..	106	106
Mobilong Division . . .	..	..	..	..	429	429
Long Flat . . . . .	..	..	..	..	338	338
Neeta . . . . .	..	..	..	..	561	561
Pompoota . . . . .	..	..	..	..	425	425
Cowirra . . . . .	..	..	..	..	571	571
Jervois . . . . .	..	..	..	..	3,639	3,639
<i>Total, Irrigation Areas</i>	<i>16,392</i>	<i>4,437</i>	<i>7,470</i>	<i>..</i>	<i>8,884</i>	<i>37,183</i>
Renmark Irrigation Trust . . .	5,402	1,896	1,650	352	..	9,300
Private landowners	6,492	14,641		28,443	27,080	76,656
Total, 1964-65	28,286	30,094		28,795	35,964	123,139

(a) Includes fodder and fallow land.

Water supply schemes

Adelaide Metropolitan Water Supply. Adelaide derives its water from six reservoirs in the nearby Mount Lofty Ranges, and by means of pumping stations and a pipeline from the Murray River at Mannum. The reservoirs have a storage capacity of 87,400 acre feet and the pipeline has a capacity of 74,000 acre feet a year.

To the north, the city of Elizabeth receives water from South Para Reservoir in the Barossa system and from the metropolitan storages. The consumption for the whole area for the year 1964-65 was 95,000 acre feet, equivalent to a consumption of 101 imperial gallons per head per day. The capital cost to 30 June 1965 was \$97,705,528.

Country reticulated supplies. Areas extending to a distance of 90 miles north of Adelaide are supplied from the Warren, Barossa, and South Para Reservoirs (50,350 acre feet) in the Barossa Ranges. Agricultural towns and areas further north are supplied from Beetaloo,

Bundaleer and Baroota Reservoirs, and the Morgan-Whyalla Pipeline. There is a supplementary supply from the Mannum-Adelaide pipeline through the Warren Reservoir. The 223-mile pipeline from Morgan to Whyalla can carry up to 14,500 acre feet of water a year from the Murray River. Work is well advanced on a second main of more than double that capacity. A large part of Eyre Peninsula is supplied, through the 240-mile, Tod River Main and the 104-mile East Coast Main, with water from the Tod River Reservoir (9,160 acre feet), the sand beds of the Uley-Wanilla Basin, the Lincoln Basin, and the newly developed Poldia Basin. Along the Murray River all towns are supplied from the river. Water from the river is also reticulated through adjacent farmlands for up to 30 miles. Surface and underground resources have been developed to supply most rural centres not covered by the larger schemes. Water conservation and distribution works in country districts to 30 June 1965 have cost \$109,905,574 (exclusive of river control and irrigation works on the Murray River) and contain 7,770 miles of water mains.

Underground water

Surveys of groundwater resources are undertaken continually by geologists of the Department of Mines, the results being published in various bulletins and reports. The *Groundwater Handbook* published in 1959 by the Department provides a comprehensive and detailed review of the State's groundwater resources.

The occupied portion of South Australia is, on the whole, well endowed with underground water, and the extent of the several artesian basins is reasonably well known. There are also considerable areas in which groundwater occurs, notably in the south-east of the State where, in the Keppoch district, supplies exceeding 100,000 gallons an hour are not uncommon. Quality varies widely, but a great deal is at least useful for watering stock, and this is its major use.

The deepest portion of the Great Artesian Basin (in the north-east) is not extensively developed because development costs are high in proportion to the carrying capacity of the arid land. Deep boreholes have been drilled by the Government to provide watering places along stock routes, and pressure waters have been developed around the basin margin. These waters occur at comparatively shallow depth, as at Marree township, where the deepest flowing bore is 575 feet. In addition to the pressure waters, the non-pressure aquifers of the subsidiary basins provide pastoralists with stock water supplies which can be readily and economically developed. The use of the waters of the Murray Basin is essential to settlement in the Murray-Mallee country and in the south-east of the State, especially for farms and township supplies. Mount Gambier draws its water from Blue Lake, which is fed from the Basin. Bores supply a number of towns in this Basin, the deepest bore being 1,805 feet. The Lincoln Basin is now fully developed and is yielding up to 20 million gallons a week, which provide a water supply for the town of Port Lincoln on Eyre Peninsula. The Poldia Basin near the township of Lock was brought into operation late in 1962. Investigations in the Basin are almost complete, and yields of 20,000 to 40,000 gallons per hour have been obtained from single large diameter boreholes. The present pumping plant has a capacity of seven million gallons a week. The water is reticulated to townships and farming properties on the upper Eyre Peninsula. Investigations are currently proceeding for the further development of this basin.

Pastoralists, farmers, market gardeners and others have been assisted with expert advice on drilling, and the Government maintains and operates twenty-five drilling plants, which to date have developed an underground water supply potential in excess of 150 million gallons of water a day throughout the State. The whole of the Murray River Basin has been examined critically to ascertain the extent of land which could be used for lucerne, and considerable tracts of previously undeveloped country in the upper south-east and Yorke Peninsula have been found to have usable water and are now being opened up. On Eyre Peninsula the Uley Basin has been in use as a source of groundwater since 1948. The water level has dropped below the critical point, however, and no groundwater has been taken from the Uley Basin since 1963. Lincoln and Poldia Basins have been supplementing the water supplies on the Peninsula since 1960 and 1962 respectively. Investigations are being made in the South Uley Basin, and yields of up to 80,000 gallons per hour have been proved from single boreholes.

Farm water schemes

The Department of Mines gives assistance to individual farmers in the provision of supplies from underground sources, and the Department of Agriculture provides an advisory service on water conservation and irrigation designs, on farms, and on the use and suitability of underground water for irrigation and stock purposes. In addition, a great part of the farming areas is supplied with water under pressure from the extensive distribution systems connected to various reservoirs on the Murray River.

South-eastern drainage

In the south-east of South Australia it has been necessary to construct drainage schemes to dispose of surplus water from areas where a series of valleys or flats is separated by low ranges.

parallel to the coastline, which prevent natural drainage. The Millicent Drainage System, completed in 1885, reclaimed 100,000 acres. The South-Eastern Drainage Area System, which is controlled by the South-Eastern Drainage Board, comprises drains constructed by the Government at national cost, plus those undertaken by the Government in co-operation with the landholders. The area is bounded on the east by the State boundary, and on the west by the sea coast. It extends from about 55 miles north of Kingston southerly to near Millicent and Kalangadoo. Up to 1948 about 430 miles of drains had been provided at a cost of \$1,441,752. These were of a developmental nature intended more to promote the rapid removal of floodwaters than to provide a complete system of drainage. Since 1948 the complete drainage of the Biscuit, Reedy Creek, and Avenue Flats in the Western Division has been in progress. The southern section of 260,000 acres, which involved the excavation of 8,100,000 cubic yards and the provision of 343 miles of new or enlarged drains, has been completed. Work is in progress on the northern section of 140,000 acres, where 68 miles of drains, involving the excavation of 2,944,070 cubic yards of material, have been completed. In addition, work is in hand for the drainage of 727,000 acres of land in the Eastern Division of the south-east, situated east of Bakers Range, and extending from near Kalangadoo to north of Naracoorte. As part of the first stage of the work (which involves the construction of a main diversion drain from Beachport to Struan), an existing drain from Beachport to Legges Lane (a distance of over 24 miles) has been enlarged, and work is proceeding between Legges Lane and Struan (a distance of 33 miles). A total of 5,839,940 cubic yards of material has been excavated. The capital cost of drainage in the South-Eastern Drainage Area System to 30 June 1965 was \$15,877,400, and the length of drains constructed was 791 miles. An extensive system of private drains (many of which are connected to the drains constructed under Government authority) also exists in the south-east of the State.

Murray River Irrigation District

Excess waters from the irrigation of orchards in the Murray River Irrigation Districts are building up a perched water table, which is rising to the levels of the tree root system. Investigations have proved that adequate drainage can be obtained in the underlying limestone aquifer. The building up of groundwater pressures due to drainage in these aquifers is being studied, as the outflow of saline waters into the Murray River surface waters must be prevented.

Western Australia

Brief particulars of the climatic conditions in Western Australia are given on page 1133 of Year Book No. 37. (See also the chapter Physical Geography and Meteorology of this issue.)

Administration

The Minister for Water Supply, Sewerage and Drainage administers the departmental irrigation schemes under the *Rights in Water and Irrigation Act, 1914-1964*. He is advised by an Irrigation Commission representing the local irrigationists and governmental, technical and financial branches. The Minister for Works administers, under the *Country Areas Water Supply Act, 1947-1964*, the water supplies to about 200 towns and 4,200,000 acres of reticulated farmland, and also controls minor non-revenue producing supplies to stock routes and a few mines and agricultural areas with their associated communities. Five town supplies are administered by local boards under the *Water Boards Act, 1904-1964*, which provides a large degree of autonomy with ultimate Ministerial control.

Irrigation

Irrigation schemes have been established by the Government on the coastal plain south of Perth in the Waroona, Harvey and Collie River Irrigation Districts between Waroona and Dardanup, the water being channelled from dams in the adjacent Darling Range.

Harvey Weir with a capacity of 8,372 acre feet and Stirling Dam (46,191 acre feet) supply the Harvey Irrigation District, the rated area of which is 13,290 acres. Additional supplies are provided by Logue Brook Dam with a capacity of 19,717 acre feet. The Harvey District is linked to the Waroona Irrigation District, served by the damming of Drakes Brook and Samson Brook (9,292 acre feet). Waroona Dam, under construction with a planned capacity of 11,900 acre feet, will also serve this district, the rated area of which is 3,060 acres. Wellington Dam on the Collie River with a capacity of 150,107 acre feet serves an area of 10,870 rated acres in the Collie River Irrigation District.

During the past thirty years a centre of tropical agriculture has been developed at Carnarvon, near the mouth of the Gascoyne River. Private pumping from sands of the Gascoyne River is the principal source of irrigation water. The Government is developing up-river sources and

delivers water by pipeline to twenty plantations in the district. Vegetables and fruit for the metropolitan market are grown. A tropical research station is maintained at Carnarvon by the Department of Agriculture.

A project has been embarked upon to provide water supplies for irrigation in the area traversed by the Ord River in the Kimberley Division. The project provides for the eventual development of an area of 175,000 acres of land agriculturally and topographically suitable for irrigation, and comprises four stages, the first being the construction of a diversion dam to supply water for an area of 30,000 acres. The other stages are the building of a main storage dam with a capacity of 3.5 million acre feet (equivalent to more than 950,000 million gallons), the progressive development of the remaining 145,000 acres, and the construction of a hydro-electric power station. The diversion dam, at Bandicoot Bar, sixty-five miles south-east of Wyndham, capacity 79,000 acre feet, was completed in 1963. Some forty farms are included in the first stage of the project, and are being released progressively. On the twenty-six farms allotted so far, cotton and rice are the principal crops grown. The Western Australian Government has presented a case to the Commonwealth Government for financial assistance towards meeting the cost of the remaining stages of the Ord Irrigation project, and this is under consideration.

On the Liveringa flood plain, water is diverted from the Fitzroy River through Uralla Creek to a natural storage of about 1,200 acre feet, which, together with a dam on Uralla Creek (4,600 acre feet), provides for irrigation at Camballin sixty-five miles south-east of Derby. During 1964-65, 8,674 acre feet of water were used in the irrigation of sorghum and rice. Further development in this area is envisaged.

AREA OF LAND IRRIGATED: WESTERN AUSTRALIA, 1960-61 TO 1964-65
(Acres)

Season	Vegetables	Fruit	Vineyards	Cotton	Other crops (a)	Pastures	Total
1960-61 . . .	9,076	8,335	897	(b)	5,591	24,652	48,551
1961-62 . . .	9,596	8,840	972	(b)	4,235	25,036	48,679
1962-63 . . .	9,375	9,588	924	(b)	4,447	27,167	51,501
1963-64 . . .	9,166	10,425	966	1,526	6,153	26,958	55,194
1964-65 . . .	9,379	11,710	1,081	5,496	5,259	30,110	63,035

(a) Includes fodder and fallow land. (b) Not available for publication, included with Other crops.

Country water supplies controlled by Department of Public Works and Water Supply

Since 1947 enlargement and extensions of the Goldfields and Agriculture Water Supply and the development of the Great Southern Towns Water Supply have been carried out, mainly in accordance with a project known as the Modified Comprehensive Scheme. Under this scheme water has been supplied to towns and farms in an area of 4.1 million acres in mixed farming (cereal and sheep) districts of Western Australia. The modified scheme was completed in 1961 at a cost of \$20.6 million, of which the Commonwealth contributed \$10 million under the *Western Australia Grant (Water Supply) Act 1948*. A further request was made by the State Government in 1963 for a grant of £5.25 million (\$10.5 million) representing half the estimated cost of proposed extensions which would increase by 3.7 million acres the area served by the scheme. The Commonwealth agreed to provide assistance in the form of an interest-bearing loan up to a maximum of the amount requested, advances to be made during a period of eight years commencing 1965-66. Legislative authority for the loan is given by the *Western Australia (South-west Region Water Supplies) Agreement Act 1965*.

Mundaring Reservoir on the Helena River, twenty-six miles from Perth, is the source of water supplied to the Eastern Goldfields. It has a capacity of 62,435 acre feet and is connected to Kalgoorlie by a pipeline with extensions to towns and agricultural areas. At 30 June 1965 the Goldfields and Agriculture Water Supply was serving eighty-nine towns, and water was being reticulated to farms in an area of 4.2 million acres. The total length of pipelines was 3,940 miles and the number of services was 24,208. Consumption during 1964-65, including supplies drawn from local schemes and from the Metropolitan Water Supply, was 2,798 million gallons.

The Great Southern Towns Water Supply pipes water from Wellington Dam to towns on the Great Southern Railway from Brooking to Katanning as well as a number of other towns. At 30 June 1965 the Supply was serving twenty-two towns, the total length of pipelines was 419 miles, and the number of services was 7,752. Consumption during 1964-65, including supplies drawn from local sources, was 518 million gallons.

Ninety-two local schemes supply water from stream flow, dams, tanks, wells and bores, mainly to country towns. At 30 June 1965 the total length of water mains was 679 miles and the number of services was 21,322. During 1964-65 consumption was 1,570 million gallons.

Other country water supplies

As well as the schemes controlled by the Department of Public Works and Water Supply, there are five local Water Boards which also draw supplies from stream flow, dams, tanks, wells and bores. In addition, some local authorities supply water within their boundaries. The Forests Department and sawmilling companies operate schemes to supply water to their mill towns. Railways of the Commonwealth and State Governments make independent provision for supplies of water for their own purposes, although considerable additional quantities are consumed by the railways from other sources, such as those controlled by the Department of Public Works and Water Supply and the Metropolitan Water Supply, Sewerage and Drainage Board.

Underground water

Considerable use is made of underground water by individual farmers, pastoralists, market gardeners, etc., and it is estimated that over 50,000 bores are in use in the State. The quality of the water varies from place to place and much of it is suitable only for stock. However, artesian aquifers are tapped to supply or augment the town supplies of Perth, Bunbury, Busselton, Eaton and Denham, and non-pressure water is used in the public supplies of thirty-seven other towns.

Considerable advances in the knowledge of aquifers and quality of water in the main sedimentary basins has been made as a result of extensive geological surveys by oil exploration companies in recent years.

The Public Works Department and the Metropolitan Water Supply, Sewerage and Drainage Department are responsible for all developmental works, and for the geological survey for all exploratory works, as well as for investigating and assessing the State's groundwater resources, advising local Government authorities, private industry and individuals on groundwater problems, and supervising departmental drilling.

Groundwater projects have recently been completed for Halls Creek, Boyanup, Carnarvon, Exmouth, Lancelin and Bremer Bay, and work is in progress on others for Geraldton, Mandurah, Morawa, Yerecoin, Esperance, Albany, Jurien Bay, Guilderton, Meekatharra, Port Hedland, and additional supplies for the Perth metropolitan area. In addition, a long-term systematic exploratory drilling programme on the Coastal Plain Basin is continuing.

Tasmania

Brief particulars of the rainfall pattern in Tasmania are given on page 1136 of Year Book No. 37. (See also the chapter Physical Geography and Meteorology of this issue.)

Main purposes of water conservation and utilization

Because of the generally more adequate rainfall in Tasmania, scarcity of water is not such a problem as it is in most mainland areas, though not all streams are permanently flowing. The only large scale conservation by reservoirs is for hydro-electric power generation, but there are some moderately sized dams built by mining and industrial interests and by municipal authorities for town water supplies.

Until a few years ago irrigated areas were negligible except for long established hop fields, but there is a rapidly extending use of spray irrigation on orchards and pastures, and to some extent on potatoes and beans. Up to the present there has been almost complete dependence on natural stream flows, but the need for some regulating storages is now apparent. A few farmers are constructing storages of their own, and the extension of this practice is foreseen as the logical solution in most areas, as valleys are narrow and steep sided. Single large reservoirs cannot economically serve large areas of suitable land, as nearly every valley is separated from others by pronounced hills, prohibiting the construction of cross-country channels.

Underground water suitable for stock, minor irrigation works, and limited domestic use is exploited in the south-east, the midlands and north-western Tasmania. Supplies are mainly derived from fractured rocks by means of shallow bores which yield between 200 and 400 gallons an hour. On King and Flinders Islands water of variable quality suitable for stock and limited domestic use is obtained from aeolian sands. The township of Currie on King Island obtains up to 200,000 gallons a day for domestic use from this source. Underground water investigations, and almost all of the water boring in Tasmania, are carried out by the Mines Department.

Administration

In 1962 a new authority, the Metropolitan Water Board, assumed overall control of water supplies to the cities of Hobart and Glenorchy and the municipalities of Kingborough and Clarence, all of which, however, retain primary responsibility for reticulation. Water supplies to other areas are primarily the responsibility of local councils, subject to approval of plans and finance by the Rivers and Water Supply Commission.

While the Commission does not own the waters of streams and lakes, it is empowered to take them, or issue licences, subject to pre-existing statute and common law rights. These include water reserved for specific industries, municipal requirements, and ordinary riparian rights. The Commission is also concerned with drainage trusts' operations, river improvement, including repairs after flood damage, and stream gauging.

Regional water schemes

Three regional water schemes are in operation. The first draws water from the east bank of the River Derwent at Lawitta to provide domestic and industrial supplies in five southern municipalities, and the second, which increases existing supplies to Hobart, pumps water from the west bank of the River Derwent at Lawitta. These two schemes are controlled by the Metropolitan Water Board. In addition, the State Government has constructed a regional water scheme to serve the aluminium refinery at Bell Bay on the River Tamar and to supply several municipalities with bulk water for domestic and industrial purposes.

Potential sources capable of greater development without storage exist on the Derwent, South Esk, Huon, Lake, Mersey and Forth Rivers. There is also a great reserve of untapped permanent streams in the western half of the State, which is largely unsettled. Diversion to the eastern half of the watersheds is not regarded as practicable.

Industrial water schemes

Three principal industrial water schemes have been installed privately—for a paper mill near Lawitta on the Derwent River, for a paper mill at Burnie using water from the Emu River, and for a factory at Heybridge reticulating water from Chasm Creek. The State Government has constructed some water schemes for use primarily for industrial purposes. These include the scheme serving the aluminium refinery at Bell Bay referred to above, a storage supplementing the summer flows of the Kermadie River for use by a wood-pulping plant at Geeveston, and the recently completed Prosser River Scheme which supplies water to a sodium alginate industry at Louisville near Orford and supplements the water supply of the township of Orford.

Irrigation

There are no State irrigation projects at present, but the Rivers and Water Supply Commission is investigating the possibility of establishing a scheme near Cressy. The *Water Act 1957* provides for irrigation works to be undertaken by municipalities and by trusts constituted for the purpose, but no such works have been undertaken to date. With the exception of the Lawrenny estate at Ouse, which is the largest single area under irrigation in the State, and also the only formally constituted irrigation district, there are no extensive schemes utilizing one common source of water supply in Tasmania. The larger proportion of the area under irrigation is watered by pumping systems.

Details of the areas of crops and pastures irrigated in Tasmania in the seasons 1960-61 to 1964-65 are shown in the following table.

AREA OF LAND IRRIGATED: TASMANIA, 1960-61 TO 1964-65
(Acres)

Season	Vegetables	Fruit	Hops	Other crops(a)	Pastures	Total
1960-61 . . .	2,103	3,311	1,364	1,787	10,369	18,934
1961-62 . . .	3,388	3,930	1,447	2,711	11,713	23,189
1962-63 . . .	4,100	4,446	1,465	2,839	11,435	24,285
1963-64 . . .	6,319	5,933	1,463	4,162	15,693	33,570
1964-65 . . .	8,302	5,955	1,553	4,318	14,194	34,322

(a) Includes fodder and fallow land.

Northern Territory

Some particulars of the climate and main topographical features of the Northern Territory are given on page 1138 of Year Book No. 37, and in this issue information on climatic conditions will be found in the chapter Physical Geography and Meteorology, and a brief outline of contour and physical characteristics in the chapter The Territories of Australia.

Administration

Under the *Control of Waters Ordinance* 1938-1962 of the Northern Territory natural waters are vested in the Crown. Where a watercourse or lake forms a boundary of any land alienated by the Crown, the beds and banks are deemed to remain the property of the Crown (except in special cases) and the diversion of water is prohibited except under prescribed conditions. There is a Water Resources Branch of the Northern Territory Administration under the control of a Director. The functions of the branch include systematic stream gauging, collection of data on surface and underground water supplies, planning of water use for irrigation and town water supplies, and flood prevention and control.

Under the *Water Supplies Development Ordinance* 1960-1963 the Water Resources Branch gives financial assistance to landholders for the development and improvement of water supplies on agricultural and pastoral leases. Another function of the branch, which is increasing in importance as it builds up a body of technical data and information about the Territory's water resources, is the dissemination of this knowledge by the provision of advice and technical assistance to professional drillers and to landholders.

Underground water

The marked seasonal rainfall over the whole of the Northern Territory is one of the basic factors affecting the pastoral industry, which provides a large proportion of the Territory's income. Underground water supplies are of great importance in the Territory, where most of the cattle numbers are dependent on underground supplies for three to five months each year, because of the inadequacy of surface water during the dry season.

Rainfall is one of the factors controlling cattle numbers, but geological features, controlling both soils and the storage of underground water, are equally important. In the northern-most portion of the Territory, which receives from 25 to 60 inches of seasonal rainfall a year, surface water supplies are, in general, adequate for the pastoral industry. Despite this, however, the area has a comparatively low carrying capacity for cattle, and the pastoral industry is concentrated more in inland areas where feed retains more nutritive value in winter, despite dry conditions. South from this well-watered northern-most portion, the Territory becomes progressively drier, with an average annual rainfall of only five inches at the margins of the Simpson Desert in the south-east corner. In the lower rainfall areas the search for potable underground water becomes exacting, but in the Ord-Victoria region and the Barkly Tablelands the best pastures are generally in areas where sub-surface conditions are suitable for the storage of underground water.

In the Ord-Victoria region the best grass lands overlie volcanic rocks and extend over some 10,000 square miles. Outcrops of sandstone, limestone and shale also occur in this area and underlie the volcanic rocks in most places. In general, these sedimentary rocks dip gently to the east, and sub-artesian conditions prevail. Underground water in this region is obtained from sandstone aquifers which yield supplies ranging up to 4,000 gallons an hour. Most of the bores are required in areas where the sediments are overlain by basalts; selection of bore sites is usually difficult. Supplies of shallow groundwater from joints, cracks and faults in the basalt are insignificant, and virtually all the bores obtain water from the sub-basalt sandstone aquifers. Successful bores in this area have ranged in depth from 200 feet to more than 900 feet. There are also small basins of younger sedimentary rocks in the region, some of which yield sub-artesian, and in places artesian, water and provide areas of good pastures.

The Barkly Tablelands, which extend into Western Queensland, overlie flat-lying limestone, sandstone and shale of the Barkly Basin. In most places underground water is under pressure (sub-artesian), but no flowing bores are known. Sandstones and beds of limestone with fractures and solution cavities provide a number of aquifers within the Basin. The hydraulic surface (to which pressure water will rise in bores) ranges between 500 and 600 feet above sea level, and adequate supplies for the watering of stock are available at depths ranging from 150 to 400 feet from the surface. The water from over 90 per cent of the bores is suitable for stock and over 50 per cent of it is suitable for human consumption. Investigations by the Commonwealth Bureau of Mineral Resources indicate that underground water supplies will be more than sufficient for the future development of the pastoral industry on the Tablelands.

In the Alice Springs district valuable pastures occur on a great variety of rock types, and from some of these very little underground water is available. Many shallow bores obtain water from alluvium near stream channels. There are also many successful bores in porous sands and limestone in Mesozoic and Cainozoic sedimentary basins and in some Upper Proterozoic and

Palaeozoic limestones and sandstones. Small supplies of underground water are obtained from bores intersecting joint zones in metamorphic rocks and granite of Archaean age. However, except in areas close to recharge, the water quality varies from moderate to poor.

The Water Resources Branch of the Northern Territory Administration has intensified research aimed at increasing the water supplies for Alice Springs and Darwin. Bores into the Palaeozoic Mereenie sandstone, twelve miles south of Alice Springs, have intersected sub-artesian aquifers at depths between 500 and 1,000 feet, and water from these bores is now used to supplement the existing town supply from alluvial basins. High-yielding dolomite aquifers of Lower Proterozoic age in the area sixteen miles south of Darwin are being developed to augment the Darwin water supply. Tennant Creek now has a water supply pumped from Cabbage Gum Basin, a small basin of alluvium and deeply weathered Precambrian rocks nine miles south of the town. A continuous check on the hydrological results of such pumping is maintained in order to adjust future yields from the basin.

At 30 June 1965, 4,946 bores and wells were registered in the Territory. Of these, 3,385 were for pastoral use, 291 were for agricultural use, 310 served town and domestic water supplies, 32 were in use on mining fields, 405 were investigation bores, 392 were Government established stock route bores, and 131 were classified under other uses. Registered bores which have been abandoned total 1,244. These include successful bores which have collapsed, and bores which were unsuccessful owing to drilling difficulties, or to insufficient quantity or poor quality of underground water.

Irrigation

There are no large water conservation projects in the Territory with the exception of the Manton Dam (12,700 acre feet), which serves Darwin with a reticulated supply. Some water is drawn from the rising main between the Manton Dam and Darwin for irrigation purposes, but the trend is for properties in this area to develop their own water supplies, either by boring or by pumping from watercourses or lakes. Investigations for additional water to augment Darwin's water supply are proceeding on the Darwin River, at Berry Springs, and in the McMinns Lagoon area. In the McMinns area a production bore has been drilled and is expected to yield one million gallons per day. This bore will be connected to the rising main from Manton Dam.

Hydrological investigations are being carried out by the Water Resources Branch to determine the available water and the best method of control and use in the potential irrigation areas of the Northern Territory. Since the start of stream gauging activity in the Northern Territory the Water Resources Branch has established 221 gauging stations. At 30 June 1965, 164 stations were in operation. Of these, 136 measure the volume of discharge of flowing streams, twenty measure the level of free standing water, and eight record tide fluctuations. One of the latter records tides in the Darwin harbour and another the tides in Melville Bay near Gove Peninsula.

Agricultural activity in the Territory is not extensive, being confined to the Darwin, Adelaide River, Coomalie Creek, Daly River, Katherine River and Alice Springs areas, with only small acreages being utilized. In the Territory thirty-three licences to divert water from streams have been issued. The total licensed area is 2,003 acres, but the actual area irrigated is less than this. There are also a number of farms irrigated from bore supplies, particularly in the Alice Springs area. Purposes for which irrigation water is used include the growing of fruit, vegetables, crops and pastures, and also dairying and mixed farming. Some 300 acres of irrigated rice were grown commercially on the Adelaide River in the 1964-65 season in a pilot farm project.

The Northern Territory Administration and the Commonwealth Scientific and Industrial Research Organization are investigating the potentialities of the Katherine area for agricultural production. In this area there are twelve licensed stream diversions covering an area of 220 acres, and investigations are continuing into the possibility of using the Adelaide and Daly Rivers for irrigation. A dam site is under investigation at Adelaide River Township. The Daly River appears promising for irrigation purposes as it has a minimum dry season flow of 275 cusecs and a reliable annual flow, without regulation, of 300,000 acre feet.

Papua and New Guinea

Rainfall in Papua and New Guinea varies considerably from approximately 250 inches near Lindenhafen (New Britain) and 230 inches at Kikori (Papua) to about seventy inches near Marienburg (New Guinea) and forty inches at Port Moresby (Papua). For a general description of these territories see the chapter The Territories of Australia, of this Year Book. Irrigation has not been developed on any organized basis owing to the availability of high rainfall and the nature of agricultural development.

The Territory of Papua and New Guinea is well served with large rivers deriving their water from heavy tropical rains and high mountains which rise to over 14,000 feet, but complete data regarding water resources are not available. At 31 July 1965 there were thirty-eight stream gauging stations in existence, and it is planned to increase this number as part of the overall establishment

of a basic stream gauging network. However, the difficulty of the terrain and the inaccessibility of some regions gives rise to considerable difficulties in the installation and operation of such stations. The available stream gauging records up to the end of 1964 are being prepared for publication.

The largest rivers in the Territory include the Fly (700 miles long, situated in the western division of Papua), the Sepik (700 miles), the Ramu (450 miles), the Purari (300 miles), and the Markham (110 miles). The main water conservation interest in New Guinea at present is the hydro-electric potential, which is extensive. An outline of schemes at present in operation is given in the previous chapter.

CHAPTER 8

POPULATION

Statistics in this chapter cover, in the main, the year 1964. More detailed figures will be found in the annual bulletin *Demography*, and current statistics are published in the *Monthly Review of Business Statistics*, the *Quarterly Summary of Australian Statistics*, and the mimeographed series *Australian Demographic Review* and *Overseas Arrivals and Departures*. All statistics in this chapter, except those on page 225, The Aboriginal Population of Australia, are exclusive of particulars of full-blood Aborigines.

Population statistics

Types of population statistics

Population statistics for Australia or the component States and Territories at specific dates are of two types.

(i) *Those ascertained by census enumeration.* These results attain a very high degree of accuracy and may generally be accepted without reservation.

(ii) *Estimates derived by the application of vital and migration statistics to census data.* In general, three estimates are made for any specific date.

- (a) Original estimates for dates subsequent to a census made before another census is taken. These estimates represent the population ascertained at the census, plus natural increase and recorded net migration since the census. As complete records of interstate migration are not available, the estimated State or Territory populations so derived are approximate, and are subject to revision when the actual population of each State or Territory is ascertained at the next census. For some States such revisions are substantial.
- (b) Two-stage revision of the original estimates for each newly completed intercensal period to adjust for the difference between the new census result and the comparable estimate. This is to bring intercensal estimates into line with the two census populations and thus effect adjustment for unrecorded movement of population in the intercensal period. The first revision is reconciled with preliminary census results and the second revision with final census results.

Final revised figures become the permanent population estimates. For purposes requiring it a mean population for any twelve-month period is calculated as described on page 198. As populations at specific dates are used in these calculations, consequential revisions are made to mean populations when the estimates for specific dates are revised as described above.

In accordance with this policy all Australian population statistics shown in this issue of the Year Book for dates up to June 1961, and all mean populations for calendar years up to 1960 and financial years up to 1960-61, are final. Population statistics for dates or years subsequent to these will be revised in accordance with the results of the June 1966 census.

Since the establishment of the Commonwealth Bureau of Census and Statistics, the populations of the States and Territories have been estimated in a comparable manner, and attention has been given to the improvement of the basic data from which the estimates are compiled. The principal source of error in early estimates lay in the migration records, both overseas and interstate, and post-censal revisions were made to these figures. With the improvement of records of overseas migration, however, such post-censal revision of the records of overseas migration was not found necessary after the 1933 census. The same level of improvement has not been achieved in respect of records of interstate movement, which cover travel by sea, air, rail and some movements by road.

The census

Census-taking

Although 'musters' of the population were carried out at least annually from 1788 to 1825, the first regular census in Australia was not taken until 1828, when a count of the population of the Colony of New South Wales was made. Subsequent censuses were taken sporadically in the various colonies until 1881, when a census was taken on the same date throughout Australia.

In 1891 and 1901 census-taking was still in the hands of the Government Statisticians of the States, but, in 1911, under the provisions of the *Census and Statistics Act* 1905, which provided for the enumeration to be made from one centre instead of by each State as formerly, the Commonwealth Statistician undertook the first census of the Commonwealth of Australia. The second was taken in 1921, the third in 1933, the fourth in 1947, the fifth in 1954, and the sixth in 1961. The seventh is to be taken in June 1966.

The Australian census is on a *de facto* basis, i.e. it records the population actually resident at a specific date, and not according to place of usual residence (*de jure* basis).

Population recorded at censuses

State and Territorial populations recorded at the Australia-wide censuses taken over the period 1881 to 1961 are shown in the following table. The figures relate to the political boundaries of the several States (or Colonies) and Territories as they existed at the date of each census, except that the Northern Territory has been shown separately from South Australia for the censuses prior to its transfer from that State. The years of formation of the separate Colonies and transfer of the Territories are shown in the chapter Discovery, Colonization and Federation of Australia (page 5). The total populations recorded at the censuses taken in the Colonies from 1828 to 1881 were shown in Year Book No. 40, page 326.

POPULATION, BY SEX: AUSTRALIAN CENSUSES, STATES AND TERRITORIES 1881 TO 1961

Census	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T. (a)	Aust.
MALES									
3 April 1881 .	410,211	451,623	125,325	146,183	17,062	61,162	3,347	..	1,214,913
5 April 1891 .	609,666	598,222	223,779	162,241	29,807	77,560	4,560	..	1,705,835
31 March 1901 .	710,005	603,720	277,003	180,485	112,875	89,624	4,216	..	1,977,928
3 April 1911 .	857,698	655,591	329,506	207,358	161,565	97,591	2,734	992	2,313,035
4 April 1921 .	1,071,501	754,724	398,969	248,267	177,278	107,743	2,821	1,567	2,762,870
30 June 1933 .	1,318,471	903,244	497,217	290,962	233,937	115,097	3,378	4,805	3,367,111
30 June 1947 .	1,492,211	1,013,867	567,471	320,031	258,076	129,244	7,378	9,092	3,797,370
30 June 1954 .	1,720,860	1,231,099	676,252	403,903	330,358	157,129	10,288	16,229	4,546,118
30 June 1961 .	1,972,909	1,474,395	774,579	490,225	375,452	177,628	16,206	30,858	5,312,252

FEMALES									
3 April 1881 .	339,614	409,943	88,200	130,231	12,646	54,543	104	..	1,035,281
5 April 1891 .	517,471	541,866	169,939	153,292	19,975	69,107	338	..	1,471,988
31 March 1901 .	644,841	597,350	221,126	177,861	71,249	82,851	595	..	1,795,873
3 April 1911 .	789,036	659,960	276,307	201,200	120,549	93,620	576	722	2,141,970
4 April 1921 .	1,028,870	776,556	357,003	246,893	155,454	106,037	1,046	1,005	2,672,864
30 June 1933 .	1,282,376	917,017	450,317	289,987	204,915	112,502	1,472	4,142	3,262,728
30 June 1947 .	1,492,627	1,040,834	538,944	326,042	244,404	127,834	3,490	7,313	3,781,988
30 June 1954 .	1,702,669	1,221,242	642,007	393,191	309,413	151,623	6,181	14,086	4,440,412
30 June 1961 .	1,944,104	1,455,718	744,249	479,115	361,177	172,712	10,889	27,971	5,195,934

PERSONS									
3 April 1881 .	749,825	861,566	213,525	276,414	29,708	115,705	3,451	..	2,250,194
5 April 1891 .	1,127,137	1,140,088	393,718	315,533	49,782	146,667	4,898	..	3,177,823
31 March 1901 .	1,354,846	1,201,070	498,129	358,346	184,124	172,475	4,811	..	3,773,801
3 April 1911 .	1,646,734	1,315,551	605,813	408,558	282,114	191,211	3,310	1,714	4,455,005
4 April 1921 .	2,100,371	1,531,280	755,972	495,160	332,732	213,780	3,867	2,572	5,435,734
30 June 1933 .	2,600,847	1,820,261	947,534	580,949	438,852	227,599	4,850	8,947	6,629,839
30 June 1947 .	2,984,838	2,054,701	1,106,415	646,073	502,480	257,078	10,868	16,905	7,579,358
30 June 1954 .	3,423,529	2,452,341	1,318,259	797,094	639,771	308,752	16,469	30,315	8,986,530
30 June 1961 .	3,917,013	2,930,113	1,518,828	969,340	736,629	350,340	27,095	58,828	10,508,186

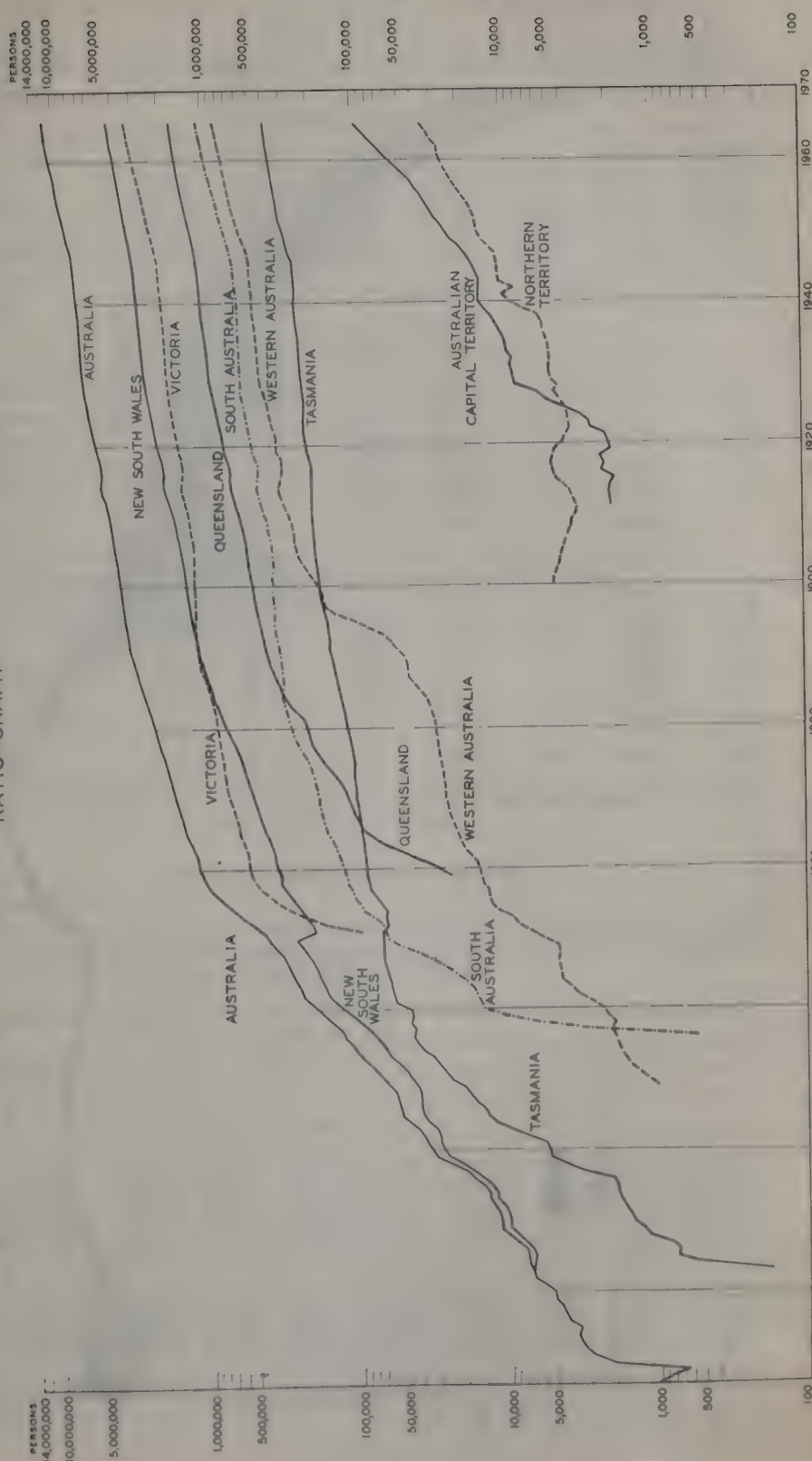
(a) Part of New South Wales prior to 1911.

Increase since 1891 census

The increases in the populations of the several States and Territories and of Australia as a whole during the last seven intercensal periods are shown in the following table, which distinguishes the numerical increases, the proportional increases (which do not allow for the differences in the length of the intercensal periods) and the average annual rates of increase.

POPULATION OF AUSTRALIA, 1788 TO 1965

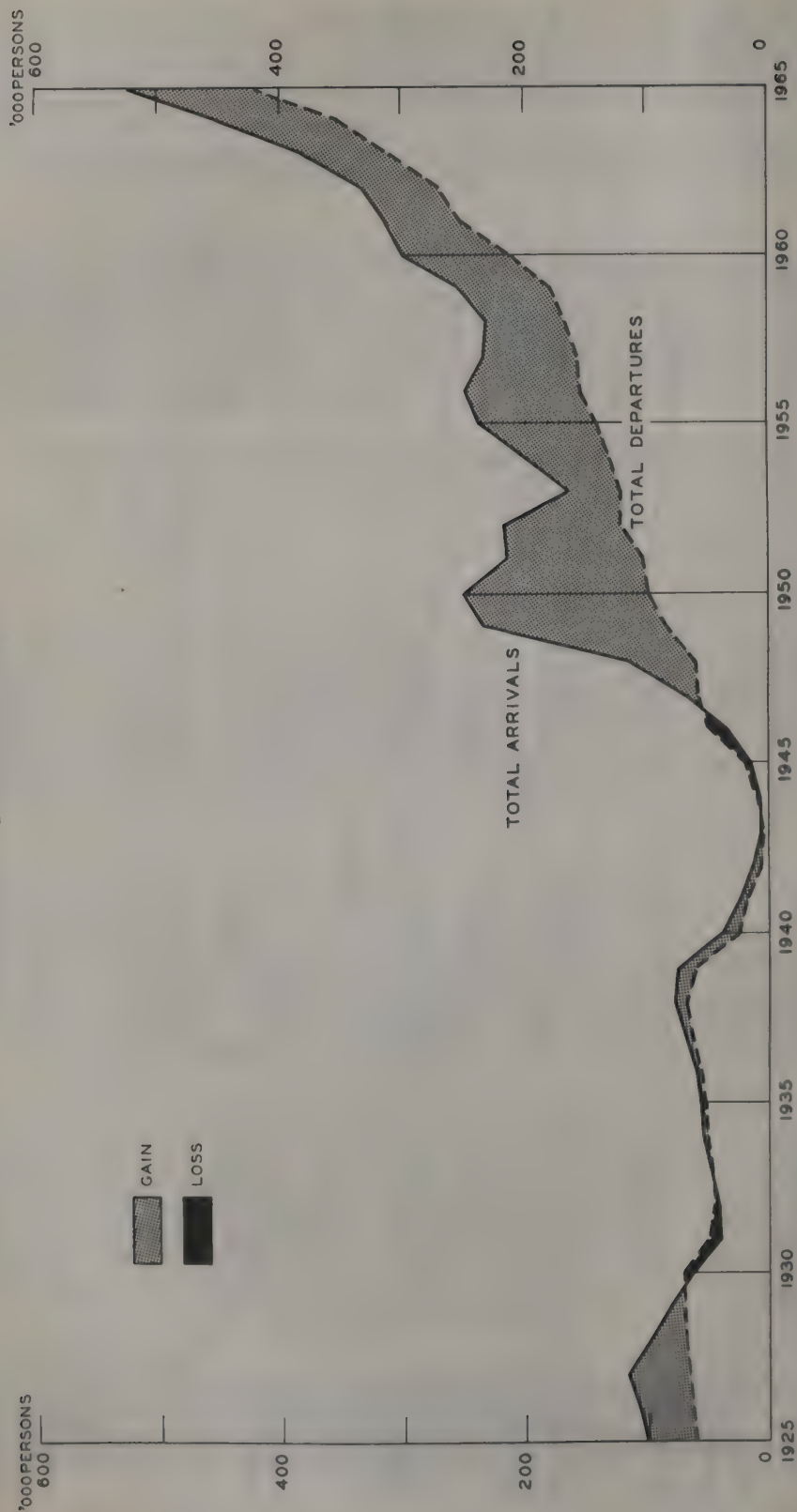
RATIO GRAPH



NOTE THE VERTICAL SCALE IS LOGARITHMIC, AND THE CURVES RISE AND FALL ACCORDING TO THE RATE OF INCREASE OR DECREASE, ACTUAL NUMBERS ARE INDICATED BY THE SCALE.

OVERSEA ARRIVALS AND DEPARTURES

AUSTRALIA, 1925 TO 1965



**POPULATION: INTERCENSAL INCREASES, STATES AND TERRITORIES
1891 TO 1961**

State or Territory	1891-1901 (10 years)	1901-1911 (10 years)	1911-1921 (10 years)	1921-1933 (12½ years)	1933-1947 (14 years)	1947-1954 (7 years)	1954-1961 (7 years)
NUMERICAL INCREASE							
New South Wales(a)	227,709	293,602	453,637	500,476	383,991	438,691	493,484
Victoria	60,982	114,481	215,729	288,981	234,440	397,640	477,772
Queensland	104,411	107,684	150,159	191,562	158,881	211,844	200,569
South Australia	42,813	50,212	86,602	85,789	65,124	151,021	172,246
Western Australia	134,342	97,990	50,618	106,120	63,628	137,291	96,858
Tasmania	25,808	18,736	22,569	13,819	29,479	51,674	41,588
Northern Territory	-87	-1,501	557	983	6,018	5,601	10,626
A.C.T.(b)	..	..	858	6,375	7,958	13,410	28,513
Australia	595,978	681,204	980,729	1,194,105	949,519	1,407,172	1,521,656

PROPORTIONAL INCREASE—PER CENT							
New South Wales(a)	20.20	21.67	27.55	23.83	14.76	14.70	14.41
Victoria	5.35	9.53	16.40	18.87	12.88	19.35	19.48
Queensland	26.52	21.62	24.79	25.34	16.77	19.15	15.21
South Australia	13.57	14.01	21.20	17.33	11.21	23.38	21.61
Western Australia	269.86	53.22	17.94	31.89	14.50	27.32	15.14
Tasmania	17.60	10.86	11.80	6.46	12.95	20.10	13.47
Northern Territory	-1.78	-31.20	16.83	25.42	124.08	51.54	64.52
A.C.T.(b)	..	..	50.06	247.86	88.95	79.33	94.06
Australia	18.75	18.05	22.01	21.97	14.32	18.57	16.93

AVERAGE ANNUAL RATE OF INCREASE—PER CENT							
New South Wales(a)	1.86	1.97	2.46	1.76	0.99	1.98	1.94
Victoria	0.52	0.91	1.53	1.42	0.87	2.56	2.58
Queensland	2.38	1.98	2.24	1.86	1.11	2.53	2.04
South Australia	1.28	1.32	1.94	1.31	0.76	3.05	2.83
Western Australia	13.97	4.36	1.66	2.29	0.97	3.51	2.03
Tasmania	1.63	1.04	1.12	0.51	0.87	2.65	1.82
Northern Territory	-0.18	-3.67	1.57	1.87	5.93	6.12	7.37
A.C.T.(b)	..	..	4.14	10.71	4.65	8.70	9.93
Australia	1.73	1.67	2.01	1.63	0.96	2.46	2.26

(a) Includes Australian Capital Territory prior to 1911. (b) Part of New South Wales prior to 1911.
Minus sign (—) denotes decrease.

Growth and distribution of population

Growth of population

The table which follows shows the growth in the population of each sex in the various States and Territories as measured by the estimated population at 31 December in 1900 and thereafter at decennial intervals to 1960, and for each year from 1960 to 1965.

ESTIMATED POPULATION, BY SEX: STATES AND TERRITORIES, DECEMBER 1900 TO 1965

At 31 Dec.—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T. (a)	Aust.
MALES									
1900 ..	716,047	601,773	274,684	180,349	110,088	89,763	4,288	..	1,976,992
1910 ..	858,181	646,482	325,513	206,557	157,971	98,866	2,738	..	2,296,308
1920 ..	1,067,945	753,803	396,555	245,300	176,895	107,259	2,911	1,062	2,751,730
1930 ..	1,294,419	892,422	481,559	288,618	232,868	113,505	3,599	4,732	3,311,722
1940b ..	1,402,297	947,037	536,712	297,885	248,734	123,650	6,337	7,856	3,570,508
1950 ..	1,627,618	1,114,497	620,329	364,705	294,758	147,103	9,414	13,021	4,191,445
1960 ..	1,951,907	1,453,815	766,448	483,802	372,665	180,511	14,785	29,140	5,253,073
1961 ..	1,983,891	1,483,176	778,282	495,778	379,947	185,661	15,236	32,588	5,354,559
1962 ..	2,015,081	1,514,612	789,664	504,571	389,304	187,833	15,798	36,048	5,452,911
1963 ..	2,052,339	1,546,890	798,224	514,458	398,091	189,515	17,042	40,495	5,557,054
1964 ..	2,088,806	1,587,986	809,494	526,847	405,771	189,974	18,092	43,958	5,670,928
1965 ..	2,127,906	1,623,992	819,288	536,894	415,731	191,808	19,698	48,818	5,784,135

For footnotes see next page.

ESTIMATED POPULATION, BY SEX: STATES AND TERRITORIES, DECEMBER 1900 TO 1965—*continued*

At 31 Dec.—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T. (a)	Aust.
FEMALES									
1900 ..	644,258	594,440	219,163	176,901	69,879	83,137	569	..	1,788,347
1910 ..	785,674	654,926	273,503	200,311	118,861	94,937	563	..	2,128,775
1920 ..	1,023,777	774,106	354,069	245,706	154,428	105,493	1,078	910	2,659,567
1930 ..	1,251,934	900,183	435,177	285,849	198,742	111,792	1,365	3,987	3,189,029
1940b ..	1,388,651	967,881	494,740	301,171	225,342	120,352	2,637	6,304	3,507,078
1950 ..	1,613,439	1,122,685	585,089	358,138	277,891	143,230	5,006	10,558	4,116,036
1960 ..	1,925,354	1,434,475	735,838	473,220	358,368	175,458	10,002	26,132	5,138,847
1961 ..	1,965,529	1,467,614	746,996	484,977	366,258	178,473	10,022	29,503	5,249,372
1962 ..	2,001,554	1,498,835	760,706	495,122	376,411	181,570	10,486	32,776	5,357,460
1963 ..	2,033,954	1,533,325	773,758	505,716	386,016	184,125	11,780	37,083	5,465,757
1964 ..	2,070,120	1,573,551	785,563	517,815	393,855	185,294	12,854	40,728	5,579,780
1965 ..	2,109,608	1,609,946	796,096	527,735	404,332	187,299	14,555	44,997	5,694,568
PERSONS									
1900 ..	1,360,305	1,196,213	493,847	357,250	179,967	172,900	4,857	..	3,765,339
1910 ..	1,643,855	1,301,408	599,016	406,868	276,832	193,803	3,301	..	4,425,083
1920 ..	2,091,722	1,527,909	750,624	491,006	331,323	212,752	3,989	1,972	5,411,297
1930 ..	2,546,353	1,792,605	916,736	574,467	431,610	225,297	4,964	8,719	6,500,751
1940b ..	2,790,948	1,914,918	1,031,452	599,056	474,076	244,002	8,974	14,160	7,077,586
1950 ..	3,241,057	2,237,182	1,205,418	722,843	572,649	290,333	14,420	23,579	8,307,481
1960 ..	3,877,261	2,888,290	1,502,286	957,022	731,033	355,969	24,787	55,272	10,391,920
1961 ..	3,949,420	2,950,790	1,525,278	980,755	746,205	364,134	25,258	62,091	10,603,931
1962 ..	4,016,635	3,013,447	1,550,370	999,693	765,715	369,403	26,284	68,824	10,810,371
1963 ..	4,086,293	3,080,215	1,571,982	1,020,174	784,107	373,640	28,822	77,578	11,022,811
1964 ..	4,158,926	3,161,537	1,595,057	1,044,662	799,626	375,268	30,946	84,686	11,250,708
1965 ..	4,237,514	3,233,938	1,615,384	1,064,629	820,063	379,107	34,253	93,815	11,478,703

(a) Part of New South Wales prior to 1911. (b) Includes all defence personnel enlisted in Australia irrespective of movements subsequent to enlistment.

Estimates of population for intercensal years are obtained in the manner outlined on page 191.

The estimated population at 31 December each year from 1788 to 1946 was shown in *Demography*, Bulletin No. 67, 1949, and for the period 1886 to 1964 in *Demography*, Bulletin No. 82, 1964. A graph illustrating the growth of the population of Australia and of each State and Territory appears on plate 20.

Proportions of area and of population, density and masculinity

In the following table the proportions of the total area and of the total population represented by each State and Territory are given, together with the density and the masculinity of the population. Additional information regarding density and masculinity of population appears later in this chapter (*see* pages 201-2).

PROPORTIONS OF AREA AND OF POPULATION; DENSITY AND MASCULINITY OF POPULATION: STATES AND TERRITORIES, 31 DECEMBER 1965

State or Territory	Pro- portion of total area (per cent)	Proportion of estimated popu- lation, 31 December 1965 (per cent)			Density (a)	Mascu- linity(b)
		Males	Females	Persons		
New South Wales .	10.43	36.79	37.05	36.92	13.69	100.87
Victoria .	2.96	28.08	28.27	28.17	36.80	100.87
Queensland .	22.47	14.16	13.98	14.07	2.42	102.91
South Australia .	12.81	9.28	9.27	9.28	2.80	101.74
Western Australia .	32.88	7.19	7.10	7.14	0.84	102.82
Tasmania .	0.89	3.32	3.29	3.30	14.37	102.41
Northern Territory .	17.53	0.34	0.25	0.30	0.07	135.33
Australian Capital Territory .	0.03	0.84	0.79	0.82	99.91	108.49
Australia .	100.00	100.00	100.00	100.00	3.87	101.57

(a) Number of persons per square mile.

(b) Number of males per 100 females.

Urban and rural distribution

The table below shows the distribution of the population among metropolitan, other urban and rural areas in each State and Territory at the 1961 census. Corresponding details for previous censuses were shown in earlier issues of the Year Book. Before comparisons are made between the populations of the metropolitan urban, other urban, and rural divisions at various censuses, consideration must be given to the changes which have taken place in the composition of these divisions from census to census.

Metropolitan urban divisions comprise the capital cities of the States and the City of Canberra, the national capital, and include, together with the cities proper, a number of adjacent municipalities and shires. The boundaries of the metropolitan urban divisions are determined for census purposes by the Statisticians of the States in collaboration with the Commonwealth Statistician, and in order to conform to the growth of the metropolitan urban population the boundaries are reviewed at each census and adjustments made, wherever necessary, to embrace contiguous urban areas that have developed since the previous census. Amendments were made, prior to the census of 1961, to the boundaries of the metropolitan urban divisions of Victoria, Queensland and Tasmania. *Other urban* divisions comprise (i) all separately incorporated municipalities (or cities, towns or boroughs) outside the metropolitan urban division (including Darwin, the capital city of the Northern Territory) except for any municipality or part of a municipality which was specifically regarded as rural for census purposes; and (ii) towns, not separately incorporated, with a population of 1,000 persons or more (750 persons or more in Tasmania). *Rural* divisions comprise the remaining portions of each State and Territory. The term *migratory* used in the following tables refers to persons not elsewhere enumerated who at midnight between 29 and 30 June 1961 were on ships in Australian waters or were travelling on long-distance trains, motor coaches or aircraft.

**URBAN AND RURAL POPULATIONS(a): STATES AND TERRITORIES
CENSUS, 30 JUNE 1961**

Division	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
PERSONS									
Urban—									
Metropolitan	2,183,388	1,911,895	621,550	587,957	420,133	115,932	..	56,449	5,897,304
Other . . .	1,151,899	573,930	536,896	177,380	125,734	130,603	16,974	..	2,713,416
Rural . . .	571,135	439,679	358,394	200,065	187,745	102,926	9,857	2,379	1,872,180
Migratory . .	10,591	4,609	1,988	3,938	3,017	879	264	..	25,286
Total . . .	3,917,013	2,930,113	1,518,828	969,340	736,629	350,340	27,095	58,828	10,508,186
PERCENTAGES									
Urban—									
Metropolitan	55.74	65.25	40.92	60.66	57.03	33.09	..	95.96	56.12
Other . . .	29.41	19.59	35.35	18.30	17.07	37.28	62.65	..	25.82
Rural . . .	14.58	15.00	23.60	20.64	25.49	29.38	36.38	4.04	17.82
Migratory . .	0.27	0.16	0.13	0.40	0.41	0.25	0.97	..	0.24
Total . . .	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

(a) See letterpress preceding this table for definitions of urban, rural, etc.

Principal urban areas

The following table shows the population of the principal cities and towns (population 6,000 or more) in each State and Territory of Australia at 30 June 1965, or at 30 June 1961, where later figures are not available.

ESTIMATED POPULATION OF PRINCIPAL CITIES AND TOWNS: AUSTRALIA
30 JUNE 1965

City or town	Popu- lation	City or town	Popu- lation	City or town	Popu- lation
NEW SOUTH WALES		VICTORIA		QUEENSLAND—cont.	
Sydney and suburbs(a)	2,349,590	Melbourne and suburbs(a)	2,121,900	Innisfail(c)	(d)6,917
Newcastle and suburbs(b)	222,390	Geelong and suburbs(b)	101,580	Roma	6,000
Greater Wollongong	150,830	Ballarat and suburbs(b)	57,980	SOUTH AUSTRALIA	
Penrith	44,890	Bendigo and suburbs(b)	42,530	Adelaide and suburbs(a)	615,500
Greater Cessnock	34,580	Warrnambool	17,630	Elizabeth	31,150
Blue Mountains	30,380	Moe	17,080	Salisbury	29,350
Broken Hill	29,890	Morwell(c)	16,370	Whyalla	18,950
Maitland	28,350	Shepparton	15,120	Mount Gambier	16,450
Campbelltown	25,300	Wangaratta	14,030	Port Pirie	13,500
Albury	24,450	Traralgon	13,170	Port Augusta	10,200
Wagga Wagga	23,960	Mildura	10,060	Port Lincoln	7,900
Tamworth	21,180	Colac	10,030	Renmark	6,100
Goulburn	20,810	Hamilton	9,580	WESTERN AUSTRALIA	
Shellharbour	19,800	Horsham	8,650	Perth and suburbs(a)	465,000
Orange	19,170	Sale	8,410	Kalgoorlie and suburbs(b)	20,950
Lismore	17,430	Benalla	8,360	Bunbury	15,200
Bathurst	15,800	Ararat	(d)7,498	Geraldton	12,600
Grafton	15,310	Wodonga(c)	(d)7,427	Albany	11,800
Dubbo	14,370	Bairnsdale(c)	7,300	Collie(c)	8,270
Armidale	13,600	Castlemaine	7,290	Northam	7,500
Windsor	13,540	Maryborough	7,100	TASMANIA	
Lithgow	(d)12,206	Echuca	6,930	Hobart and suburbs(a)	123,967
Woy Woy-Etalong(c)	11,670	Swan Hill	6,720	Launceston and suburbs(b)	59,440
Queanbeyan	10,600	Portland	(d)6,405	Burnie	15,010
Taree	9,350	Warragul(c)		Devonport	14,310
Cooma	8,610	QUEENSLAND		Ulverstone	6,380
Parkes	8,550	Brisbane and suburbs(a)	677,000	NORTHERN TERRITORY	
Inverell	(d)8,515	Townsville	56,250	Darwin	16,881
Toronto(c)	8,090	Toowoomba	53,800	Alice Springs	6,076
Casino	7,560	Ipswich	52,750	AUSTRALIAN CAPITAL TERRITORY	
Kempsey	7,320	Rockhampton	45,350	Canberra(a)	(e)85,690
Griffith(c)	(d)7,318	Gold Coast	39,000		
Moree	(d)7,188	Cairns	26,400		
Camden	(d)7,151	Bundaberg	24,200		
Gunnedah	7,150	Maryborough	19,550		
Gosford(c)	6,740	Mackay	17,550		
Coff's Harbour(c)	6,700	Mount Isa(c)	(d)13,358		
Murwillumbah(c)	(d)6,221	Gympie	11,500		
Forbes	6,100	Warwick	10,050		
Port Macquarie	6,080	Dalby	8,150		
Cowra	6,010	Ayr(c)	(d)8,010		
Nowra(c)	7,950	Gladstone	7,950		
Cootamundra	7,850	Charters Towers	7,850		
Deniliquin					
Singleton					
The Entrance-Long Jetty(c)	(d)6,006				

(a) Metropolitan area. (b) Entire urban area. (c) Non-municipal town, i.e., a town not separately incorporated for purposes of local government. (d) 30 June 1961. (e) Population count, 30 June 1965.

A table showing the aggregate urban population at the 1961 census of all cities and towns outside the metropolitan area of each State with 2,000 or more, and 3,000 or more, urban inhabitants was given in Year Book No. 51, page 267. A table showing similar data for the 1954 census was given in Year Book No. 47, page 295 and one for the 1947 census in Year Book No. 40, page 334. Comparisons between these various tables can be made only if allowance is made for changes in the status and structure of local government areas and for changes in the manner of determining urban population at each census.

Principal cities of the world

The following table shows the population of the world's largest cities at the latest available date. Since the way in which cities are delimited differs from country to country, the table shows data for the urban agglomeration, if such exists, as well as data for the so-called city proper. The urban agglomeration is defined in the United Nations *Demographic Yearbook* 1964 (page 26), from which most of the figures in the table have been taken, as the suburban fringe or thickly settled territory lying outside of, but adjacent to, city boundaries. (See also the Technical Notes on Statistical Tables and footnotes to the table in the *Demographic Yearbook*.)

POPULATION OF THE WORLD'S LARGEST CITIES

(Details for Commonwealth countries are printed in italics)

City	Country	Year	Population ('000)	
			City proper	Urban agglomeration
New York	U.S.A.	1963	8,086	(a) 11,291
Tokyo	Japan	1963	8,733	10,428
London	<i>England</i>	1964	3,185	8,187
Paris	France	1962	2,790	7,369
Buenos Aires	Argentina	1960	2,967	7,000
Shanghai	China	1957	6,900	..
Los Angeles	U.S.A.	1960	2,479	6,489
Moscow	U.S.S.R.	1964	6,334	6,388
Chicago	U.S.A.	1960	3,550	5,959
<i>Calcutta</i>	<i>India</i>	1964	3,004	4,580
Philadelphia	U.S.A.	1963	2,050	4,554
<i>Bombay</i>	<i>India</i>	1964	4,538	..
Peking	China	1957	4,010	..
Leningrad	U.S.S.R.	1964	3,218	3,607
Detroit	U.S.A.	1960	1,670	3,538
Cairo	United Arab Republic	1962	3,518	..
Rio de Janeiro . . .	Brazil	1960	3,223	..
Tientsin	China	1957	3,220	..
Osaka	Japan	1963	..	(b) 3,197
Sao Paulo	Brazil	1960	3,165	..
Mexico City	Mexico	1963	3,118	..
Seoul	Korea	1962	2,983	..
Djakarta	Indonesia	1961	2,907	..
San Francisco	U.S.A.	1963	741	2,839
<i>Delhi</i>	<i>India</i>	1964	2,298	2,630
<i>Manchester</i>	<i>England</i>	1964	645	2,449
Madrid	Spain	1963	..	2,443
Boston	U.S.A.	1960	697	2,413
Shenyang(c)	China	1957	2,411	..
<i>Birmingham</i> . . .	<i>England</i>	1964	1,106	2,384
<i>Sydney</i>	<i>Australia</i>	1965	167	2,350
Rome	Italy	1963	..	2,329
Teheran	Iran	1963	2,317	..
Santiago	Chile	1963	..	2,271
Washington	U.S.A.	1963	798	2,250
<i>Montreal</i>	<i>Canada</i>	1963	..	2,205
St. Louis	U.S.A.	1963	711	2,180
West Berlin (d) . .	Germany	1963	2,177	..
Wuhan	China	1957	2,146	..
<i>Melbourne</i>	<i>Australia</i>	1965	76	2,122
Chungking	China	1957	2,121	..
<i>Karachi</i>	<i>Pakistan</i>	1961	1,913	2,060
<i>Toronto</i>	<i>Canada</i>	1963	..	1,925
Budapest	Hungary	1963	1,900	..
Manila	Philippines	1960	1,139	(e) 1,865
Nagoya	Japan	1963	..	(b) 1,859
Athens	Greece	1961	628	1,853
Hamburg	Germany	1963	1,851	..
Canton	China	1957	1,840	..
<i>Madras</i>	<i>India</i>	1964	1,834	..
<i>Singapore</i>	<i>Singapore</i>	1964	1,820	..
Baltimore	U.S.A.	1963	938	1,811
Pittsburg	U.S.A.	1960	604	1,804
<i>Glasgow</i>	<i>Scotland</i>	1963	1,036	(f) 1,802

(a) New York-Northeastern New Jersey urbanized area, which includes Elizabeth, Jersey City, Newark, Paterson and Yonkers.

(b) May include some scattered or rural population as well as the urban centre.

(c) Formerly Mukden.

(d) East Berlin, year 1964, population of city proper, 1,071,462.

(e) 1957.

(f) 1961.

Mean population

Mean populations are calculated for twelve-month periods to provide a satisfactory average basis for calculations requiring allowance for the continuous change in population figures during such periods. From 1901 onwards the mean population for any year has been calculated by the formula:

$$\text{Mean population} = \frac{a + 4b + 2c + 4d + e}{12}$$

where *a*, *b*, *c*, *d* and *e*, respectively, are the populations at the end of the quarter immediately preceding the year and at the end of each of the four succeeding quarters; e.g., in the case of a calendar year, 31 December of the preceding year, and 31 March, 30 June, 30 September and 31 December of the year under consideration. This formula gives a close approximation to the mean of a theoretical population progressing smoothly through the five values *a*, *b*, *c*, *d*, and *e*.

The following tables show the mean populations for the calendar and financial years 1956 to 1965.

MEAN POPULATION: CALENDAR YEARS, STATES AND TERRITORIES
1956 TO 1965

Year ended 31 Dec.—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1956 . .	3,556,672	2,592,670	1,377,393	848,563	674,459	321,039	19,155	35,352	9,425,303
1957 . .	3,624,311	2,656,363	1,408,732	874,201	687,448	328,435	20,620	37,999	9,638,109
1958 . .	3,696,049	2,717,371	1,436,156	896,987	699,915	335,382	21,746	41,110	9,844,716
1959 . .	3,762,339	2,783,951	1,464,469	921,106	711,737	341,423	23,623	46,618	10,055,266
1960 . .	3,834,085	2,857,032	1,491,114	944,861	722,900	346,913	25,107	52,562	10,274,574
1961 . .	3,914,718	2,927,526	1,515,516	969,630	737,386	353,613	26,243	58,792	10,503,424
1962 . .	3,980,675	2,990,041	1,539,076	989,385	755,259	359,408	26,973	65,699	10,706,516
1963 . .	4,050,987	3,055,162	1,562,456	1,008,862	773,235	364,280	28,668	73,348	10,916,998
1964 . .	4,121,601	3,128,888	1,585,036	1,032,021	790,224	367,359	31,388	80,735	11,137,252
1965 . .	4,195,933	3,207,400	1,606,943	1,053,425	806,189	369,421	33,919	88,787	11,362,017

MEAN POPULATION: FINANCIAL YEARS, STATES AND TERRITORIES
1955-56 TO 1964-65

Year ended 30 June—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1956 . .	3,524,991	2,556,148	1,360,801	834,489	666,898	318,309	18,419	34,132	9,314,187
1957 . .	3,589,128	2,625,609	1,394,088	861,410	680,949	324,666	19,915	36,749	9,532,514
1958 . .	3,660,738	2,687,115	1,422,349	886,021	693,568	332,046	21,239	39,283	9,742,359
1959 . .	3,729,030	2,749,994	1,450,535	908,354	705,869	338,628	22,507	43,429	9,948,346
1960 . .	3,796,452	2,819,650	1,478,129	933,619	717,316	344,111	24,573	50,013	10,163,863
1961 . .	3,875,921	2,893,417	1,503,703	957,136	729,770	350,077	25,673	55,232	10,390,929
1962 . .	3,948,380	2,959,167	1,526,959	980,108	745,805	356,686	26,566	62,433	10,606,104
1963 . .	4,015,463	3,021,792	1,551,304	998,971	764,426	362,111	27,604	69,217	10,810,888
1964 . .	4,086,489	3,090,956	1,573,410	1,020,098	782,203	366,187	30,061	77,229	11,026,633
1965 . .	4,157,600	3,169,240	1,596,229	1,043,271	797,537	368,086	32,439	84,549	11,248,951

Elements of increase

The two factors which contribute to the growth of a population are 'natural increase', i.e., the excess of births over deaths, and 'net migration', i.e., the excess of arrivals over departures. The 'total increase' of the population is obtained by combining natural increase with the increase by net migration. However, comparison of the total increase so obtained with that derived by subtracting the population recorded at one census from that recorded at the next census reveals differences which can be attributed partly to differences in the coverage of the census enumerations, and partly to deficiencies in the records of the elements of increase.

Elements of increase, 1941 to 1965

In the following table particulars are given of the elements of increase for each five-year period from 1941 to 1965 and for each of the years 1961 to 1965.

POPULATION: ELEMENTS OF INCREASE, BY SEX
AUSTRALIA, 1941 TO 1965

Period	Natural increase (a)	Net migration (b)	Intercensal adjustment (c)	Total increase
MALES				
1941-45 . .	142,605	5,325	3,428	151,358
1946-50 . .	255,335	217,728	-3,484	469,579
1951-55 . .	287,685	240,481	-5,794	522,372
1956-60 . .	328,616	214,210	-3,570	539,256
1961-65 . .	331,032	200,463	(d)	531,062
1961 . .	72,864	29,055	-433	101,486
1962 . .	69,732	28,620	(d)	98,352
1963 . .	67,924	36,219	(d)	104,143
1964 . .	61,816	52,058	(d)	113,874
1965 . .	58,696	54,511	(d)	113,207
FEMALES				
1941-45 . .	195,073	2,484	3,696	201,253
1946-50 . .	274,112	135,356	-1,763	407,705
1951-55 . .	312,017	173,343	-3,388	481,972
1956-60 . .	351,241	190,812	-1,214	540,839
1961-65 . .	356,400	199,425	(d)	555,721
1961 . .	78,161	32,468	-104	110,525
1962 . .	74,186	33,902	(d)	108,088
1963 . .	72,871	35,426 ^a	(d)	108,297
1964 . .	66,739	47,284	(d)	114,023
1965 . .	64,443	50,345	(d)	114,788
PERSONS				
1941-45 . .	337,678	7,809	7,124	352,611
1946-50 . .	529,447	353,084	-5,247	877,284
1951-55 . .	599,702	413,824	-9,182	1,004,344
1956-60 . .	679,857	405,022	-4,784	1,080,095
1961-65 . .	687,432	399,888	(d)	1,086,783
1961 . .	151,025	61,523	-537	212,011
1962 . .	143,918	62,522	(d)	206,440
1963 . .	140,795	71,645	(d)	212,440
1964 . .	128,555	99,342	(d)	227,897
1965 . .	123,139	104,856	(d)	227,995

(a) Excess of births over deaths. For the period September 1939 to June 1947, deaths of defence personnel, whether overseas or in Australia, have been included.
 (b) Excess of arrivals over departures. Excludes troop movements for the period September 1939 to June 1947. (c) Adjustment of population on the basis of the final results of the 1947, 1954 and 1961 censuses. (d) For periods subsequent to the census of 30 June 1961 the intercensal adjustment will not be known until after the next census has been taken.

Analysis of intercensal increase, 30 June 1954 to 30 June 1961

As stated on page 191 of this chapter, complete records of interstate migration are not available. For this reason the differences between the estimated populations and those recorded at the census of 30 June 1961, i.e. the intercensal adjustments, were substantial for some States.

POPULATION: ANALYSIS OF INTERCENSAL INCREASE, BY SEX, STATES AND TERRITORIES, 30 JUNE 1954 TO 30 JUNE 1961

State or Territory	Population at 30 June 1954(a)	Natural increase(b)	Net migration (c)	Total recorded increase	Intercensal adjustment (d)	Population at 30 June 1961(a)
MALES						
New South Wales	1,720,860	150,250	86,499	236,749	15,300	1,972,909
Victoria	1,231,099	127,005	135,628	262,633	-19,337	1,474,395
Queensland	676,252	73,227	8,072	81,299	17,028	774,579
South Australia	403,903	41,607	46,432	88,039	-1,717	490,225
Western Australia	330,358	38,000	14,723	52,723	-7,629	375,452
Tasmania	157,129	19,946	13,120	33,066	-12,567	177,628
Northern Territory	10,288	1,753	463	2,216	3,702	16,206
Australian Capital Territory	16,229	3,732	10,792	14,524	105	30,858
<i>Australia</i>	<i>4,546,118</i>	<i>455,520</i>	<i>315,729</i>	<i>771,249</i>	<i>- 5,115</i>	<i>5,312,252</i>
FEMALES						
New South Wales	1,702,669	165,876	86,193	252,069	-10,634	1,944,104
Victoria	1,221,242	129,415	126,020	255,435	-20,959	1,455,718
Queensland	642,007	80,840	342	81,182	21,060	744,249
South Australia	393,191	44,156	39,892	84,048	1,876	479,115
Western Australia	309,413	41,432	12,615	54,047	-2,283	361,177
Tasmania	151,623	20,705	-8,077	12,628	8,461	172,712
Northern Territory	6,181	2,118	1,941	4,059	649	10,889
Australian Capital Territory	14,086	3,627	10,099	13,726	158	27,970
<i>Australia</i>	<i>4,440,412</i>	<i>488,169</i>	<i>269,025</i>	<i>757,194</i>	<i>- 1,672</i>	<i>5,195,934</i>
PERSONS						
New South Wales	3,423,529	316,126	172,692	488,818	4,666	3,917,013
Victoria	2,452,341	256,420	261,648	518,068	-40,296	2,930,113
Queensland	1,318,259	154,067	8,414	162,481	38,088	1,518,828
South Australia	797,094	85,763	86,324	172,087	159	969,340
Western Australia	639,771	79,432	27,338	106,770	-9,912	736,629
Tasmania	308,752	40,651	5,043	45,694	-4,106	350,340
Northern Territory	16,469	3,871	2,404	6,275	4,351	27,095
Australian Capital Territory	30,315	7,359	20,891	28,250	263	58,828
<i>Australia</i>	<i>8,986,530</i>	<i>943,689</i>	<i>584,754</i>	<i>1,528,443</i>	<i>- 6,787</i>	<i>10,508,186</i>

(a) Census. (b) Excess of births over deaths. (c) Excess of arrivals over departures for recorded interstate and overseas migration. (d) Adjustment of population on the basis of the census of 30 June 1961.

Rate of population growth

In the following two tables natural increase refers to the excess of births over deaths (including deaths of Australian defence personnel), net migration refers to excess of overseas arrivals over departures excluding overseas movement of defence personnel for the period September 1939 to June 1947, and total increase is the sum of natural increase and net migration together with differences disclosed by results of population censuses up to 30 June 1961.

Annual rates of natural increase, net migration and total increase, for single years, represent the increase during the year expressed as a proportion (per cent) of the population at the beginning of the year. These rates are slightly higher than those calculated as a proportion (per cent) of the mean population for the year.

Average annual rates of increase for periods greater than one year have been calculated in the following manner.

The average annual rate of total increase is computed by the formula:

$$P_t = P_0 (1+r)^t$$

where P_0 and P_t are the populations at the beginning and end of a t -year period, respectively and r is the average annual rate of growth.

The average annual rate of natural increase and net migration is computed by dividing the average annual rate of total increase between its components in proportion to the fraction of total increase due to each component during the period. Differences between the sum of the rates of natural increase and of net migration and the rate of total increase are due to the intercensal adjustment.

**POPULATION: ANNUAL RATE OF GROWTH, AUSTRALIA
1941 TO 1965
(Per cent)**

Period	Natural increase	Net migration	Total increase
Average annual rate—			
1941-45	0.94	0.02	0.98
1946-50	1.36	0.91	2.26
1951-55	1.38	0.95	2.31
1956-60	1.40	0.83	2.22
1961-65	1.27	0.74	2.01
Annual rate—			
1961	1.45	0.59	2.04
1962	1.36	0.59	1.95
1963	1.30	0.67	1.97
1964	1.17	0.90	2.07
1965	1.10	0.93	2.03

The average annual rate of population growth during the present century has been 1.72 per cent, but the results from year to year have deviated widely from this figure. In the following table the period 1 January 1901 to 31 December 1965 has been arranged into certain defined groups of years according to the occurrence of influences markedly affecting the growth of population.

**POPULATION: PERIODICAL RATES OF GROWTH, AUSTRALIA
1901 TO 1965**

Period	Interval (years)	Total increase (‘000)	Average annual numerical increase (‘000)	Average annual rate of population growth (per cent)		
				Natural increase	Net migration	Total
1901 to 1913 . .	13	1,128	87	1.55	0.49	2.04
1914 to 1923 . .	10	862	86	1.49	0.15	1.64
1924 to 1929 . .	6	680	113	1.26	0.62	1.88
1930 to 1939 . .	10	569	57	0.82	0.02	0.85
1940 to 1946 . .	7	513	73	0.98	0.01	1.01
1947 to 1952 . .	6	1,222	204	1.37	1.19	2.54
1953 to 1960 . .	8	1,652	207	1.39	0.81	2.19
1961 to 1965 . .	5	1,087	217	1.27	0.74	2.01

Rates of population growth from 1886 are shown for each State and Territory of Australia in the annual bulletin, *Demography*. Estimated rates of growth of the population of Australia in comparison with those for other countries of the world for the years 1958-1963 are shown in the table on pages 227-8.

Density

From certain aspects, population may be less significant in respect of its absolute amount than in its relation to the area of the country. Australia, with an area of 2,967,909 square miles and an estimated population at 31 December 1965 of 11,478,703, excluding full-blood Aborigines, has a density of only 3.87 persons to the square mile, and is, therefore, one of the most sparsely populated countries of the world. For other continents and sub-continent, the densities in 1963 were approximately as follows: Europe (excluding U.S.S.R.), 231; Asia (excluding U.S.S.R.), 163; U.S.S.R., 26; Africa, 26; Northern America, 26; and Latin America, 28. The population density of Australia in 1963 was 3.68, about one-seventh of that of Northern America, of Africa

and of the U.S.S.R.; about one-eighth of that of Latin America; about one-forty-fourth of that of Asia (excluding U.S.S.R.); and about one sixty-third of that of Europe (excluding U.S.S.R.).

Because of the large area of Australia and the unsuitability for settlement of much of the country, the density of population must necessarily increase slowly. In Australia as a whole the figure has increased from 1.29 per square mile in 1901 to 3.87 in 1965. The rise in density from 1901 to 1965 in each State and Territory was: New South Wales 4.45 to 13.69, Victoria 13.77 to 36.80, Queensland 0.76 to 2.42, South Australia 0.95 to 2.80, Western Australia 0.20 to 0.84, Tasmania 6.68 to 14.37, Northern Territory 0.01 to 0.07, and Australian Capital Territory 2.05 (in 1911) to 99.91. When comparing the density of population of the several States, consideration should be given to the average annual rainfall distribution in each State as an indication of the climatic influence upon probable population numbers. The proportion of the area of Australia receiving less than 10 inches of rainfall is 39 per cent.; that of the various States is: New South Wales, 20 per cent.; Victoria, nil; Queensland, 13 per cent.; South Australia, 83 per cent.; Western Australia, 58 per cent.; and Tasmania, nil.

The number and density of population of the principal countries and continental groups of the world are shown in the table on pages 227-8.

General characteristics of the population

Particulars of the characteristics of the population of Australia at the 1961 census compared with the 1954 census are shown in this section, and for the individual States and Territories at the 1961 census in Year Book No. 49 (see pp. 317-35). Information concerning the industry, occupational status and occupations of the population as recorded at the 1961 census is given in the chapter Employment and Unemployment, and on dwellings and householders in the chapter Housing and Building.

Sex distribution

The number of males to each hundred females has been adopted as a measure of the 'masculinity' of the population. The masculinity of the population of each of the States may be obtained for each year from 1796 to 1907 from the table on pages 163-5 of Year Book No. 2 and for the years 1900 to 1910 from the table on page 123 of Year Book No. 5.

With the exception of some dislocation arising from the two World Wars, there was a continuous diminution of the masculinity of the population until 1945. This resulted from the increasing proportion of the population in the higher age groups, in which females preponderate owing to their greater longevity, and the general long-term fall in the birth rate. At the 1947 census the numbers of the sexes were practically equal, but during the following decade there was an increase in masculinity owing to the greater number of males as compared with females in net overseas migration, and the recovery of the birth rate in the post-war period from the low levels of the 1930s. In more recent years, however, the trend has declined again.

POPULATION: MASCULINITY, STATES AND TERRITORIES

DECEMBER 1900 TO 1965

(Number of males per 100 females)

At 31 December—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1900 . . .	111.14	101.23	125.33	101.95	157.54	107.97	753.60	(a)	110.55
1910 . . .	109.23	98.71	119.02	103.12	132.90	104.14	486.32	(a)	107.87
1920 . . .	104.31	97.38	112.00	99.83	114.55	101.67	270.04	116.70	103.47
1930 . . .	103.39	99.14	110.66	100.97	117.17	101.53	263.66	118.69	103.85
1940 . . .	100.98	97.85	108.48	98.91	110.38	102.74	240.31	124.62	101.81
1950 . . .	100.88	99.27	106.02	101.83	106.07	102.70	188.05	123.33	101.83
1960 . . .	101.38	101.35	104.16	102.24	103.99	102.88	147.82	111.51	102.22
1961 . . .	100.93	101.06	104.19	102.23	103.74	104.03	152.03	110.46	102.00
1962 . . .	100.68	101.05	103.81	101.91	103.42	103.45	150.66	109.98	101.78
1963 . . .	100.90	100.88	103.16	101.73	103.13	102.93	144.67	109.20	101.67
1964 . . .	100.90	100.92	103.05	101.74	103.03	102.53	140.75	107.93	101.63
1965 . . .	100.87	100.87	102.91	101.74	102.82	102.41	135.33	108.49	101.57

(a) Part of New South Wales prior to 1911.

The masculinity of the population in the principal countries of the world is shown in the table on pages 227-8.

Age distribution

Proportional distribution, censuses, 1871 to 1961. The next table shows the changes which have taken place in the age distribution of the population of Australia since 1871.

**POPULATION: PROPORTIONAL AGE DISTRIBUTION, BY SEX, AUSTRALIA
1871 TO 1961
(Per cent)**

Census	Males				Females				Persons			
	Under 15 years	15 years and under 65	65 years and over	Total	Under 15 years	15 years and under 65	65 years and over	Total	Under 15 years	15 years and under 65	65 years and over	Total
1871 .	38.84	59.11	2.05	100	46.02	52.60	1.38	100	42.09	56.17	1.74	100
1881 .	36.36	60.81	2.83	100	41.86	56.03	2.11	100	38.89	58.61	2.50	100
1891 .	34.80	62.01	3.19	100	39.38	58.09	2.53	100	36.92	60.19	2.89	100
1901 .	33.89	61.80	4.31	100	36.51	59.88	3.61	100	35.14	60.88	3.98	100
1911 .	30.84	64.82	4.34	100	32.52	63.28	4.20	100	31.65	64.08	4.27	100
1921 .	31.64	63.88	4.48	100	31.79	63.83	4.38	100	31.71	63.86	4.43	100
1933 .	27.53	66.09	6.38	100	27.42	65.99	6.59	100	27.48	66.04	6.48	100
1947 .	25.49	67.08	7.43	100	24.62	66.71	8.67	100	25.06	66.89	8.05	100
1954 .	28.81	63.82	7.37	100	28.23	62.52	9.25	100	28.52	63.18	8.30	100
1961 .	30.61	62.16	7.23	100	29.85	60.33	9.82	100	30.23	61.26	8.51	100

Estimated age distribution, 30 June 1964 and 1965. Estimates, based on the census distribution of ages and records of births ages at death, and ages of migrants, are made for intercensal years.

**POPULATION: ESTIMATED AGE DISTRIBUTION(a), BY SEX, AUSTRALIA
30 JUNE 1964 AND 1965**

Age last birthday (years)	30 June 1964			30 June 1965		
	Males	Females	Persons	Males	Females	Persons
0-4	590,513	561,299	1,151,812	594,011	564,967	1,158,978
5-9	567,793	541,501	1,109,294	578,911	549,977	1,128,888
10-14	536,587	512,470	1,049,057	545,311	521,682	1,066,993
15-19	502,242	476,150	978,392	523,157	494,953	1,018,110
20-24	398,801	377,460	776,261	420,443	398,284	818,727
25-29	360,541	340,489	701,030	374,019	351,425	725,444
30-34	364,549	336,017	700,566	361,271	335,283	696,554
35-39	398,627	369,365	767,992	397,510	366,076	763,586
40-44	384,966	368,638	753,604	396,880	380,977	777,857
45-49	328,073	323,257	651,330	329,732	322,348	652,080
50-54	317,691	304,285	621,976	325,561	317,257	642,818
55-59	260,358	249,628	509,986	265,587	254,538	520,125
60-64	209,305	216,891	426,196	213,144	219,241	432,385
65-69	148,487	185,965	334,452	155,400	190,109	345,509
70-74	117,171	156,685	273,856	115,858	160,278	276,136
75-79	77,291	110,441	187,732	77,395	110,857	188,252
80-84	35,517	57,759	93,276	37,302	61,299	98,601
85 and over	16,508	32,189	48,697	16,132	32,335	48,467
Total	5,615,020	5,520,489	11,135,509	5,727,624	5,631,886	11,359,510

(a) Based on the age distribution at the census of 30 June 1961, and on subsequent births, recorded ages at death and recorded ages of migrants.

Marital status; country of birth; period of residence in Australia; nationality; race; religion

The following tables show the population of Australia at the censuses of 30 June 1954 and 1961, classified according to marital status, country of birth, period of residence in Australia, nationality, race and religion.

**POPULATION: MARITAL STATUS, BY SEX, AUSTRALIA
CENSUSES, 30 JUNE 1954 AND 1961**

Marital status	Census, 30 June 1954			Census, 30 June 1961			Increase, 1954-61
	Males	Females	Persons	Males	Females	Persons	
Never married—							
Under 15 years of age	1,309,660	1,253,674	2,563,334	1,626,195	1,550,803	3,176,998	613,664
15 years of age and over	962,491	684,154	1,646,645	1,098,450	770,048	1,868,498	221,853
<i>Total, never married</i>	<i>2,272,151</i>	<i>1,937,828</i>	<i>4,209,979</i>	<i>2,724,645</i>	<i>2,320,851</i>	<i>5,045,496</i>	<i>835,517</i>
Married	2,062,122	2,043,651	4,105,773	2,364,710	2,344,754	4,709,464	603,691
Married but permanently separated	57,371	66,228	123,599	68,172	78,367	146,539	22,940
Widowed	113,064	351,102	464,166	116,085	408,623	524,708	60,542
Divorced	32,389	36,650	69,039	38,640	43,339	81,979	12,940
Not stated	9,021	4,953	13,974	(a)	(a)	(a)	-13,974
Grand total . . .	4,546,118	4,440,412	8,986,530	5,312,252	5,195,934	10,508,186	1,521,656

(a) In processing the 1961 census data a marital status was allocated prior to tabulation in all instances where this information was not stated.

Minus sign (—) denotes decrease.

**POPULATION: COUNTRY OF BIRTH, BY SEX, AUSTRALIA
CENSUSES, 30 JUNE 1954 AND 1961**

Country of birth	Census, 30 June 1954			Census, 30 June 1961			Increase, 1954-61
	Males	Females	Persons	Males	Females	Persons	
<i>Australia</i>	<i>3,812,435</i>	<i>3,887,629</i>	<i>7,700,064</i>	<i>4,325,005</i>	<i>4,404,401</i>	<i>8,729,406</i>	<i>1,029,342</i>
<i>New Zealand</i>	<i>21,723</i>	<i>21,627</i>	<i>43,350</i>	<i>23,377</i>	<i>23,634</i>	<i>47,011</i>	<i>3,661</i>
Europe—							
United Kingdom and Republic of Ireland	359,010	305,195	664,205	400,491	354,911	755,402	91,197
Germany	33,663	31,759	65,422	57,579	51,736	109,315	43,893
Greece	16,794	9,068	25,862	43,593	33,740	77,333	51,471
Italy	80,279	39,618	119,897	134,624	93,672	228,296	108,399
Malta	12,411	7,577	19,988	22,628	16,709	39,337	19,349
Netherlands	30,046	21,989	52,035	56,811	45,272	102,083	50,048
Poland	35,652	20,942	56,594	36,395	23,654	60,049	3,455
Other	91,848	59,213	151,061	134,185	90,212	224,397	73,336
Total, Europe . . .	659,703	495,361	1,155,064	886,306	709,906	1,596,212	441,148
Other countries . . .	52,257	35,795	88,052	77,564	57,993	135,557	47,505
<i>Total born outside Australia</i>	<i>733,683</i>	<i>552,783</i>	<i>1,286,466</i>	<i>987,247</i>	<i>791,533</i>	<i>1,778,780</i>	<i>492,314</i>
Grand total . . .	4,546,118	4,440,412	8,986,530	5,312,252	5,195,934	10,508,186	1,521,656

**PERSONS BORN OUTSIDE AUSTRALIA, BY PERIOD OF RESIDENCE IN AUSTRALIA
AND SEX, CENSUSES, 30 JUNE 1954 AND 1961**

Period of residence (years)	Census, 30 June 1954			Census, 30 June 1961			Increase, 1954-61
	Males	Females	Persons	Males	Females	Persons	
Under 1	47,430	34,841	82,271	72,162	51,169	123,331	41,060
1 and under 2	32,228	27,096	59,324	48,600	38,366	86,966	27,642
2 " " 3	65,374	39,354	104,728	47,126	42,901	90,027	-14,701
3 " " 4	71,183	50,367	121,550	37,736	41,254	78,990	-42,560
4 " " 5	87,636	62,200	149,836	42,600	41,284	83,884	-65,952
5 " " 6	64,618	45,416	110,034	54,091	42,064	96,155	-13,879
6 " " 7	21,522	15,424	36,946	51,816	40,202	92,018	55,072
7 " " 14	331,417	268,228	599,645	345,666	254,983	600,649	490,716
14 " " 21				22,386	17,795	40,181	
21 and over				244,002	205,529	449,531	
Not stated	12,275	9,857	22,132	21,062	15,986	37,048	14,916
Total	733,683	552,783	1,286,466	987,247	791,533	1,778,780	492,314

Minus sign (—) denotes decrease.

**POPULATION: NATIONALITY (i.e. ALLEGIANCE), BY SEX, AUSTRALIA
CENSUSES, 30 JUNE 1954 AND 1961**

Nationality	Census, 30 June 1954			Census, 30 June 1961			Increase, 1954-61
	Males	Females	Persons	Males	Females	Persons	
British(a)—							
Born in Australia	3,812,435	3,887,629	7,700,064	4,325,005	4,404,401	8,729,406	1,029,342
Born outside Australia	485,601	397,473	883,074	686,611	568,692	1,255,303	372,229
Total, British	4,298,036	4,285,102	8,583,138	5,011,616	4,973,093	9,984,709	1,401,571
Foreign—							
Dutch	30,518	22,940	53,458	41,216	34,601	75,817	22,359
German	17,262	14,186	31,448	34,317	26,172	60,489	29,041
Greek	11,415	6,428	17,843	32,763	28,238	61,001	43,158
Hungarian	5,910	3,746	9,656	8,210	5,816	14,026	4,370
Italian	61,673	28,345	90,018	86,941	67,068	154,009	63,991
Latvian, Lithuanian and Estonian	16,735	13,893	30,628	4,176	2,936	7,112	-23,516
Polish	29,524	20,222	49,746	12,939	9,474	22,413	-27,333
Ukrainian	9,871	7,368	17,239	2,926	2,109	5,035	-12,204
Yugoslavian	11,633	6,491	18,124	17,745	9,637	27,382	9,258
Other (incl. Stateless)	53,541	31,691	85,232	59,403	36,790	96,193	10,961
Total, foreign	248,082	155,310	403,392	300,636	222,841	523,477	120,085
Grand total	4,546,118	4,440,412	8,986,530	5,312,252	5,195,934	10,508,186	1,521,656

(a) All persons of individual citizenship status who, by virtue of the *Nationality and Citizenship Act 1948-1960*, are deemed to be British subjects. Includes naturalized British. For purposes of this table Irish nationality is included with British.

Minus sign (—) denotes decrease.

POPULATION: RACE, BY SEX, AUSTRALIA, CENSUSES, 30 JUNE 1954 AND 1961

Race	Census, 30 June 1954			Census, 30 June 1961		
	Males	Females	Persons	Males	Females	Persons
<i>European</i>	4,508,795	4,412,896	8,921,691	5,260,853	5,157,908	10,418,761
<i>Non-European—</i>						
Afghan	73	25	98	63	36	99
African, n.e.i.	52	5	57	65	19	84
Arab, Persian	201	70	271	333	222	555
Asian Jew	42	27	69	53	48	101
Asian, n.e.i.	733	169	902	793	325	1,118
Chinese	9,150	3,728	12,878	14,237	6,145	20,382
Cingalese, Burgher, Tamil	196	72	268	384	279	663
Egyptian	30	31	61	42	34	76
Fijian	51	13	64	100	38	138
Filipino	127	100	227	169	128	297
Indian, Pakistani	1,892	317	2,209	2,937	595	3,532
Indonesian, Javanese, Timorese, etc.	312	36	348	449	90	539
Japanese	247	292	539	949	769	1,718
Malay	534	251	785	717	346	1,063
Maori	57	29	86	102	92	194
Negro	56	13	69	106	26	132
Pacific Islander, n.e.i.(a)	934	764	1,698	1,158	1,028	2,186
Papuan, New Guinean	28	8	36	72	58	130
Siamese, Thaiander	163	60	223	180	60	240
Syrian, Lebanese	1,374	916	2,290	1,834	1,407	3,241
Torres Strait Islander	2,043	2,210	4,253	2,446	2,526	4,972
Other and indefinite	37	18	55	77	43	120
Total, non-European	18,332	9,154	27,486	27,266	14,314	41,580
<i>European and(b)—</i>						
Afghan	69	47	116	56	62	118
African, n.e.i.	11	4	15	8	13	21
Arab, Persian	18	12	30	23	18	41
Asian Jew	11	3	14	4	9	13
Asian, n.e.i.	60	52	112	111	117	228
Australian Aboriginal	15,849	15,510	31,359	19,713	19,459	39,172
Chinese	1,404	1,276	2,680	1,648	1,538	3,186
Cingalese, Burgher, Tamil	58	65	123	124	104	228
Egyptian	4	7	11	11	16	27
Fijian	15	20	35	21	22	43
Filipino	101	100	201	176	220	396
Indian, Pakistani	259	179	438	293	240	533
Indonesian, Javanese, Timorese, etc.	12	21	33	71	68	139
Japanese	114	132	246	497	456	953
Malay	214	235	449	313	329	642
Maori	89	82	171	126	129	255
Negro	77	58	135	60	59	119
Pacific Islander, n.e.i.(a)	257	257	514	367	362	729
Papuan, New Guinean	10	7	17	33	43	76
Siamese, Thaiander	25	18	43	17	19	36
Syrian, Lebanese	103	96	199	108	108	216
Torres Strait Islander	60	49	109	134	111	245
Other and indefinite	171	132	303	219	210	429
Total, European/other races(b)	18,991	18,362	37,353	24,133	23,712	47,845
Total, non-European and European/other races	37,323	27,516	64,839	51,399	38,026	89,425
Grand total	4,546,118	4,440,412	8,986,530	5,312,252	5,195,934	10,508,186

(a) Includes Pacific Islander, Polynesian and South Sea Islander, so described. (b) This category covers persons with European blood of the extent of one-half and blood of a non-European race to the extent of one-half.

The characteristic 'race' refers broadly to the ethnic origin of the person irrespective of where born or of what nationality. For this characteristic the basic data do not permit of scientific classification of ethnic origin, and the races are named with a geographical rather than a truly ethnological description.

POPULATION: RELIGION, BY SEX, AUSTRALIA, CENSUSES, 30 JUNE 1954 AND 1961

Religion	Census, 30 June 1954			Census, 30 June 1961			Increase, 1954-61
	Males	Females	Persons	Males	Females	Persons	
Christian—							
Baptist	60,048	67,396	127,444	70,990	78,638	149,628	22,184
Brethren	7,511	8,893	16,404	7,265	8,228	15,493	-911
Catholic, Roman(a)	413,719	347,383	761,102	602,763	536,886	1,139,649	378,547
Catholic(a)	635,398	664,486	1,299,884	730,093	750,242	1,480,335	180,451
Churches of Christ	37,880	42,484	80,364	45,115	50,518	95,633	15,269
Church of England	1,709,197	1,699,653	3,408,850	1,834,732	1,834,208	3,668,940	260,090
Congregational	32,508	36,944	69,452	34,679	38,847	73,526	4,074
Greek Orthodox	44,382	30,363	74,745	84,965	69,959	154,924	80,179
Lutheran	60,306	55,872	116,178	82,453	77,729	160,182	44,004
Methodist	478,605	499,328	977,933	528,003	548,392	1,076,395	98,462
Presbyterian	430,798	439,444	870,242	482,503	494,218	976,721	106,479
Protestant (undefined)	48,539	46,877	95,416	50,515	48,048	98,563	3,147
Salvation Army	20,304	22,534	42,838	24,379	26,735	51,114	8,276
Seventh-day Adventist	11,166	14,163	25,329	14,313	17,320	31,633	6,304
Other (including Christian undefined)	31,957	35,616	67,573	48,626	52,779	101,405	33,832
<i>Total, Christian</i>	<i>4,022,318</i>	<i>4,011,436</i>	<i>8,033,754</i>	<i>4,641,394</i>	<i>4,632,747</i>	<i>9,274,141</i>	<i>1,240,387</i>
Non-Christian—							
Hebrew	24,548	23,888	48,436	29,571	29,758	59,329	10,893
Other	4,910	1,471	6,381	6,547	2,928	9,475	3,094
<i>Total, non-Christian</i>	<i>29,458</i>	<i>25,359</i>	<i>54,817</i>	<i>36,118</i>	<i>32,686</i>	<i>68,804</i>	<i>13,987</i>
Indefinite	10,038	8,418	18,456	13,495	11,267	24,762	6,306
No religion	16,652	7,032	23,684	25,206	12,344	37,550	13,866
No reply	467,652	388,167	855,819	596,039	506,890	1,102,929	247,110
<i>Grand total</i>	<i>4,546,118</i>	<i>4,440,412</i>	<i>8,986,530</i>	<i>5,312,252</i>	<i>5,195,934</i>	<i>10,508,186</i>	<i>1,521,656</i>

(a) So described in individual census schedules.
Minus sign (—) denotes decrease.

Oversea arrivals and departures

More detailed statistics of oversea arrivals and departures, covering country of residence, country of embarkation/intended disembarkation, mode of travel, month of arrival or departure, etc., are shown in the tables of Section II., Oversea Arrivals and Departures, of the annual bulletin *Demography*. Monthly and quarterly mimeographed bulletins, containing the latest available statistics of oversea arrivals and departures, are also issued.

Oversea arrivals and departures since 1936

Earlier issues of the Year Book contain, in summary form, tables showing the increase of population by net migration from 1861 to the latest date, while information for individual years from 1881 is published in the annual bulletin *Demography*. The following table shows, for Australia, arrivals and departures since 1936, and refers to total movement irrespective of length of stay. Air crews and ships' crews, persons passing through Australia on board the same ship or aircraft, and also persons on a short pleasure cruise commencing and finishing in Australia on a ship not engaged in a regular voyage, are excluded from Australian statistics of oversea arrivals and departures. A graph showing arrivals and departures from 1925 to 1965 appears on plate 21.

OVERSEA ARRIVALS AND DEPARTURES, BY SEX: AUSTRALIA, 1936 TO 1965

Period	Total arrivals			Total departures			Excess of arrivals over departures		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
1936-40(a)	161,774	159,538	321,312	140,901	137,283	278,184	20,873	22,255	43,128
1941-45(a)	35,422	28,503	63,925	30,097	26,019	56,116	5,325	2,484	7,809
1946-50(a)	398,507	303,413	701,920	180,779	168,057	348,836	217,728	135,356	353,084
1951-55	581,300	446,566	1,027,866	340,819	273,223	614,042	240,481	173,343	413,824
1956-60	695,445	568,652	1,264,097	481,235	377,840	859,075	214,210	190,812	405,022
1961-65	1,107,419	896,215	2,003,634	906,956	696,790	1,603,746	200,463	199,425	399,888
1961	170,404	142,686	313,090	141,349	110,218	251,567	29,055	32,468	61,523
1962	180,732	151,592	332,324	152,112	117,690	269,802	28,620	33,902	62,522
1963	211,430	169,297	380,727	175,211	133,871	309,082	36,219	35,426	71,645
1964	252,669	199,688	452,357	200,611	152,404	353,015	52,058	47,284	99,342
1965	292,184	232,952	525,136	237,673	182,607	420,280	54,511	50,345	104,856

(a) Excludes movements of defence personnel from September 1939 to June 1947.

Excess of arrivals over departures

The excess of total overseas arrivals over total departures is one of the elements of population increase taken into account in preparing the estimated population for other than census dates (see page 191 of this chapter). It is necessary to use statistics of total overseas arrivals and departures for this purpose, because Australian population statistics relate to the total population present in Australia at the date of the census or estimate, and not the population normally resident in Australia (which would include those temporarily overseas and exclude those temporarily visiting Australia). In the two following tables are set out particulars of the net gain or loss of population due to overseas migration, according to age and marital status and according to country of birth.

EXCESS OF ARRIVALS OVER DEPARTURES, BY SEX: AGE DISTRIBUTION AND MARITAL STATUS, AUSTRALIA, 1963 AND 1964

	1963			1964		
	Males	Females	Persons	Males	Females	Persons

AGE DISTRIBUTION

Years—						
0-4	4,081	3,842	7,923	5,761	5,288	11,049
5-14	7,402	6,880	14,282	10,574	9,465	20,039
15-24	10,572	8,973	19,545	14,713	11,293	26,006
25-44	11,499	11,310	22,809	16,893	15,878	32,771
45-64	2,140	3,220	5,360	3,169	3,932	7,101
65 and over	525	1,201	1,726	948	1,428	2,376
Total	36,219	35,426	71,645	52,058	47,284	99,342

MARITAL STATUS

Never married—						
Under 15 years of age	11,483	10,722	22,205	16,335	14,753	31,088
15 years of age and over	10,811	8,359	19,170	16,565	10,087	26,652
Married	13,686	15,290	28,976	18,724	21,393	40,117
Widowed	103	841	944	218	939	1,157
Divorced	136	214	350	216	112	328
Total	36,219	35,426	71,645	52,058	47,284	99,342

Minus sign (—) indicates excess of departures over arrivals.

EXCESS OF ARRIVALS OVER DEPARTURES, BY SEX: COUNTRY OF BIRTH
AUSTRALIA, 1963 TO 1965

Country of birth	1963			1964			1965		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
Africa—									
Commonwealth countries	399	351	750	501	478	979	471	443	914
South Africa	188	237	425	256	301	557	142	182	324
Other	984	950	1,934	1,010	867	1,877	645	629	1,274
America—									
Canada	202	206	408	402	287	689	394	358	752
Other Commonwealth countries	16	5	21	48	43	91	72	55	127
United States of America	485	431	916	832	701	1,533	1,009	760	1,769
Other	67	66	133	146	129	275	179	137	316
Asia—									
Ceylon, India, Pakistan	565	506	1,071	578	598	1,176	647	598	1,245
Malaysia	363	424	787	392	354	746	140	213	353
Other Commonwealth countries	232	285	517	376	368	744	164	272	436
China	134	237	371	250	148	398	17	255	272
Other	677	738	1,415	1,038	955	1,993	1,389	958	2,347
Europe—									
Malta	2,190	1,833	4,023	3,218	2,164	5,382	2,527	2,241	4,768
United Kingdom and Ireland	21,760	20,287	42,047	29,313	26,213	55,526	34,134	31,671	65,805
Other Commonwealth countries	32	32	64	65	56	121	130	112	242
Austria	-81	39	-42	228	131	359	322	237	559
Germany	-474	257	-217	824	613	1,437	441	640	1,081
Greece	4,969	4,919	9,888	8,897	8,238	17,135	7,867	7,612	15,479
Italy	3,181	4,194	7,375	2,311	4,579	6,890	3,784	3,965	7,749
Netherlands	-475	-517	-992	183	116	299	295	268	563
Poland	315	429	744	352	399	751	503	612	1,115
Spain	977	902	1,879	82	120	202	277	212	489
Yugoslavia	2,656	1,956	4,612	3,009	1,959	4,968	3,604	2,170	5,774
Other	162	428	590	636	998	1,634	971	738	1,709
Oceania—									
Australia	-5,347	-5,844	-11,191	-6,018	-5,907	-11,925	-7,881	-7,217	-15,098
New Zealand	1,196	1,331	2,527	2,033	1,529	3,562	1,461	1,432	2,893
Papua and New Guinea	226	182	408	472	300	772	377	301	678
Other Commonwealth countries	27	45	72	151	139	290	-52	79	27
Other	19	46	65	-6	-15	-21	4	44	48
At sea, and not stated	574	471	1,045	479	423	902	478	368	846
Grand total	36,219	35,426	71,645	52,058	47,284	99,342	54,511	50,345	104,856

Minus sign (—) indicates excess of departures over arrivals.

Stated purpose of travel

Since 1 July 1924 overseas travellers have been classified according to declared intention in regard to residence into two principal categories, distinguishing movements for short terms from movements for longer periods (including permanently). Prior to 1957 these categories were *temporary* and *permanent*. Thereafter the categories were entitled *short-term* and *permanent* and *long-term*, but the basis of classification was not changed and the figures are directly comparable for the whole period. For short-term movements overseas visitors and Australian residents have been identified separately.

Revised questions for travellers were introduced in mid-1958, and these enabled the separation, from 1 January 1959, of permanent from other long-term movements and also the identification among the permanent departures of former settlers departing.

The principal categories of travellers according to stated purpose of travel are as follows:

Permanent movement—consisting of persons arriving with stated intent to settle permanently in Australia, and Australian residents departing with stated intent to reside permanently abroad;

Long-term movement—consisting of the arrival of visitors and the departure of residents with stated intent to stay (in Australia or in a country abroad respectively) for twelve months or more; and the departure of visitors and the return of residents who have stayed (in Australia or in a country abroad respectively) for twelve months or more;

Short-term movement—consisting of all other movements, including the movement of Australian troops irrespective of period of stay;

Settlers—persons who, on arrival in Australia, indicated that they came intending to settle;*

Former settlers—persons who, on departure from Australia, stated that they had come to Australia intending to settle, had stayed for a period of twelve months or more and were now departing permanently.*

This classification is based on the purpose of travel stated by travellers on arrival in, or departure from, Australia. These statements represent the traveller's intention at that time. Many travellers subsequently change their intentions, and this must be borne in mind in interpreting the statistics.

The numbers so classified since 1 January 1941, on the basis of declared intention as to residence, and since 1 January 1961, on this basis supplemented by additional particulars as to stated purpose of travel, are as follows.

OVERSEA ARRIVALS AND DEPARTURES, BY STATED PURPOSE OF TRAVEL AUSTRALIA, 1941 TO 1965

ARRIVALS

Period	Permanent and long-term movement				Short-term movement				Total arrivals
	Permanent	Long-term		Total permanent and long-term arrivals	Residents returning	Overseas visitors arriving			
	Settlers arriving	Residents returning	Overseas visitors arriving			In transit	Other	Total	
1941-45 .	n.a.	n.a.	n.a.	32,624	11,150	n.a.	n.a.	20,151	63,925
1946-50 .	n.a.	n.a.	n.a.	457,988	108,736	n.a.	n.a.	135,196	701,920
1951-55 .	n.a.	n.a.	n.a.	570,090	216,949	77,825	163,002	240,827	1,027,866
1956-60 .	n.a.	n.a.	n.a.	615,767	309,611	84,206	254,513	338,719	1,264,097
1961-65 .	575,992	111,288	73,848	761,128	585,203	143,424	513,879	657,303	2,003,634
1961 .	95,407	18,602	13,577	127,586	86,208	24,945	74,351	99,296	313,090
1962 .	90,464	20,580	13,941	124,985	95,915	25,477	85,947	111,424	332,324
1963 .	108,150	22,205	13,813	144,168	111,182	27,348	98,029	125,377	380,727
1964 .	134,464	23,641	15,020	173,125	131,354	31,583	116,295	147,878	452,357
1965 .	147,507	26,260	17,497	191,264	160,544	34,071	139,257	173,328	525,136

DEPARTURES

Period	Permanent and long-term movement					Short-term movement		Total de- partures	
	Permanent			Long-term		Total permanent and long-term departures	Residents departing		Oversea visitors departing
	Former settlers departing	Other residents departing	Total permanent	Residents departing	Oversea visitors departing				
1941-45 .	n.a.	n.a.	n.a.	n.a.	n.a.	22,399	9,163	24,554	56,116
1946-50 .	n.a.	n.a.	n.a.	n.a.	n.a.	105,968	101,787	141,081	348,836
1951-55 .	n.a.	n.a.	n.a.	n.a.	n.a.	155,509	212,978	245,555	614,042
1956-60 .	n.a.	n.a.	n.a.	n.a.	n.a.	210,807	306,118	342,150	859,075
1961-65 .	48,491	33,989	82,480	189,526	63,593	335,599	593,119	675,028	1,603,746
1961 .	8,240	6,537	14,777	32,157	12,213	59,147	89,880	102,540	251,567
1962 .	8,518	6,911	15,429	31,781	13,137	60,347	95,872	113,583	269,802
1963 .	9,102	7,176	16,278	38,317	12,729	67,324	112,427	129,331	309,082
1964 .	7,828	7,255	15,083	40,958	13,085	69,126	133,248	150,641	353,015
1965 .	14,803	6,110	20,913	46,313	12,429	79,655	161,692	178,933	420,280

Permanent movement

In the following paragraphs particulars are given of the persons who on arrival in Australia stated that they came intending to settle, and of Australian residents who on departure from Australia stated their intent to reside permanently abroad.

* Included in *Permanent movement*.

Country of birth. The principal countries of birth of permanent arrivals (assisted arrivals and others) and departures during the years 1964 and 1965 were as follows.

**OVERSEA ARRIVALS AND DEPARTURES—PERMANENT MOVEMENT
COUNTRY OF BIRTH, AUSTRALIA, 1964 AND 1965**

Country of birth	1964				1965			
	Arrivals			Departures	Arrivals			Departures
	Assisted (a)	Others	Total		Assisted (a)	Others	Total	
Africa—								
Commonwealth countries	409	603	1,012	62	456	632	1,088	104
South Africa	343	409	752	96	250	279	529	141
Other	219	1,818	2,037	51	170	1,241	1,411	65
America—								
Commonwealth countries	152	656	808	197	222	824	1,046	195
United States of America	781	724	1,505	423	1,055	1,105	2,160	514
Other	98	149	247	13	102	244	346	33
Asia—								
Ceylon, India, Pakistan	340	974	1,314	94	379	988	1,367	123
Other Commonwealth countries	150	901	1,051	154	229	939	1,168	218
Other	154	2,259	2,413	279	262	2,598	2,860	315
Europe—								
Malta	3,668	2,118	5,786	38	3,232	2,138	5,370	99
United Kingdom and Ireland	59,336	6,983	66,319	4,865	72,883	6,594	79,477	9,215
Other Commonwealth countries	109	17	126	13	262	32	294	30
Austria	744	187	931	162	859	135	994	156
Belgium	218	42	260	70	157	33	190	57
Germany	2,939	706	3,645	667	2,761	680	3,441	809
Greece	3,217	14,850	18,067	110	3,020	14,155	17,175	182
Italy	224	11,640	11,864	298	439	10,107	10,546	313
Netherlands	1,421	771	2,192	665	1,794	513	2,307	724
Poland	126	990	1,116	135	156	1,069	1,225	138
Spain	147	555	702	61	476	650	1,126	55
Yugoslavia	2,071	3,444	5,515	159	1,828	4,629	6,457	256
Other	1,522	1,366	2,888	559	1,751	1,256	3,007	644
Oceania—								
Australia	782	312	1,094	5,186	653	314	967	5,629
New Zealand	50	1,864	1,914	592	28	2,025	2,053	793
Other Commonwealth countries	14	238	252	87	46	180	226	64
Other	1	13	14	3	2	29	31	11
At sea, and not stated	369	271	640	44	181	465	646	30
Total	79,604	54,860	134,464	15,083	93,653	53,854	147,507	20,913

(a) For details of assisted passage schemes see pages 215-19.

Nationality. The principal nationalities of permanent arrivals (assisted arrivals and others) and departures during the years 1964 and 1965 were as follows.

**OVERSEA ARRIVALS AND DEPARTURES—PERMANENT MOVEMENT:
NATIONALITY, AUSTRALIA, 1964 AND 1965**

Nationality	1964				1965			
	Arrivals			Departures	Arrivals			Departures
	Assisted (a)	Others	Total		Assisted (a)	Others	Total	
British—								
Country of citizenship—								
Australia	732	930	1,662	5,118	523	1,012	1,535	5,173
Canada	50	703	753	245	75	851	926	224
Ceylon, India and Pakistan	5	687	692	41	4	660	664	55
Ireland(b)	918	175	1,093	200	1,191	161	1,352	183
New Zealand	30	1,900	1,930	515	19	2,046	2,065	694
South Africa(b)	218	203	421	75	131	201	332	98
United Kingdom and colonies(c)	58,603	7,969	66,572	4,557	71,205	8,519	79,724	8,172
Other countries	52	916	968	129	70	676	746	197
Citizenship not stated	5,715	2,203	7,918	829	6,283	1,356	7,639	2,067
Total, British	66,323	15,686	82,009	11,709	79,501	15,482	94,983	16,863

For footnotes see next page.

OVERSEA ARRIVALS AND DEPARTURES—PERMANENT MOVEMENT
NATIONALITY, AUSTRALIA, 1964 AND 1965—continued

Nationality	1964				1965			
	Arrivals			Departures	Arrivals			Departures
	Assisted	Other	Total		Assisted	Other	Total	
American(U.S.)	822	756	1,578	565	1,103	1,177	2,280	675
Austrian	736	171	907	154	861	133	994	155
Belgian	216	36	252	78	157	28	185	54
Dutch	1,521	848	2,369	701	1,861	609	2,470	795
German	2,806	665	3,471	623	2,650	517	3,167	817
Greek	3,248	15,747	18,995	98	3,022	14,519	17,541	181
Italian	194	11,846	12,040	251	418	10,358	10,776	268
Lebanese	4	838	842	7	1	1,289	1,290	9
Polish(d)	21	940	961	63	24	1,006	1,030	85
Russian(e)	3	119	122	26	2	209	211	30
Spanish	121	535	656	70	459	675	1,134	53
Yugoslav	1,570	3,190	4,760	103	1,494	4,674	6,168	183
Stateless(f)	543	902	1,445	28	428	639	1,067	35
Other	1,476	2,581	4,057	607	1,672	2,539	4,211	710
Grand total	79,604	54,860	134,464	15,083	93,653	53,854	147,507	20,913

(a) For details of assisted passage schemes see pages 215-19. (b) Included with 'British' nationality for the purpose of this table. (c) Includes Maltese. See page 211 for particulars of persons born in Malta. (d) Includes 'Stateless' who were formerly Polish. (e) Includes 'Stateless' who were formerly Russian. (f) Stateless, former nationality not stated, or other than Polish or Russian.

Occupation. The main occupation groupings of permanent arrivals and departures during the years 1964 and 1965 were as follows.

OVERSEA ARRIVALS AND DEPARTURES—PERMANENT MOVEMENT
OCCUPATION AND SEX, AUSTRALIA, 1964 AND 1965

Occupation group(a)	1964				1965			
	Arrivals		Departures		Arrivals		Departures	
	Males	Females	Males	Females	Males	Females	Males	Females
Professional, technical and related workers	3,919	2,177	873	678	4,354	2,342	1,229	794
Administrative, executive and managerial workers	1,726	194	366	39	2,225	281	522	50
Clerical workers	2,336	4,004	416	750	2,323	4,837	449	1,101
Sales workers	1,595	829	253	130	1,819	1,098	350	188
Farmers, fishermen, hunters, timber getters and related workers	4,624	59	177	2	3,595	80	221	6
Miners, quarrymen and related workers	379	..	53	..	484	..	56	..
Workers in transport and communication	2,777	294	241	38	3,672	427	346	57
Craftsmen and production-process workers	17,300	2,303	1,678	198	18,807	2,956	2,680	347
Labourers	7,431	..	430	..	8,682	..	628	..
Service (protective and other), sport and recreation workers	1,603	6,938	301	204	1,818	6,736	267	312
Occupation inadequately described or not stated	3,532	800	115	29	4,047	623	169	41
Persons not in work force—								
Children and students	22,761	20,118	2,525	2,346	25,477	23,218	3,416	3,156
Others	1,125	25,640	218	3,023	1,030	26,576	288	4,240
Total	71,108	63,356	7,646	7,437	78,333	69,174	10,621	10,292

(a) The classification of occupations used in compiling these figures is that used for the 1961 census and is not directly comparable with that in use prior to 1961.

Age and marital status. The age distribution and marital status of permanent arrivals and departures during the year 1965 were as follows.

**OVERSEA ARRIVALS AND DEPARTURES—PERMANENT MOVEMENT, BY SEX
AGE DISTRIBUTION AND MARITAL STATUS, AUSTRALIA, 1965**

Age (years)	Arrivals				Departures			
	Never married	Married	Widowed or divorced	Total	Never married	Married	Widowed or divorced	Total
MALES								
0-4	9,406	..	..	9,406	1,356	..	..	1,356
5-14	13,975	..	..	13,975	1,739	..	..	1,739
15-24	16,603	3,057	18	19,678	1,525	298	4	1,827
25-44	7,623	20,491	332	28,446	1,248	2,939	72	4,259
45-64	377	5,066	259	5,702	132	933	73	1,138
65 and over	62	767	297	1,126	33	191	78	302
Total	48,046	29,381	906	78,333	6,033	4,361	227	10,621
FEMALES								
0-4	8,855	..	..	8,855	1,247	..	..	1,247
5-14	13,005	..	..	13,005	1,655	..	..	1,655
15-24	10,364	6,510	25	16,899	1,108	888	6	2,002
25-44	3,145	18,734	480	22,359	627	2,895	118	3,640
45-64	355	4,375	1,631	6,361	125	818	297	1,240
65 and over	80	501	1,114	1,695	35	128	345	508
Total	35,804	30,120	3,250	69,174	4,797	4,729	766	10,292
PERSONS								
0-4	18,261	..	..	18,261	2,603	..	..	2,603
5-14	26,980	..	..	26,980	3,394	..	..	3,394
15-24	26,967	9,567	43	36,577	2,633	1,186	10	3,829
25-44	10,768	39,225	812	50,805	1,875	5,834	190	7,899
45-64	732	9,441	1,890	12,063	257	1,751	370	2,378
65 and over	142	1,268	1,411	2,821	68	319	423	810
Total	83,850	59,501	4,156	147,507	10,830	9,090	993	20,913

Settlers—State or Territory of intended residence. The following table shows the number of settlers arriving in Australia, according to the State or Territory of intended residence. Persons are asked, on or before arrival, the State or Territory of Australia in which they next intend to stay for twelve months or more. The statements represent the settlers' intentions at the time and may not be realized. The allocation to States and Territories in the table is based on these statements, except that settlers proceeding to the migrant reception centre, Bonegilla, Victoria, are allocated, as far as is practicable, to the State or Territory of their placement from the centre.

**OVERSEA ARRIVALS—SETTLERS ARRIVING: STATE OR
TERRITORY OF INTENDED RESIDENCE, 1963 TO 1965**

State or Territory of intended residence	1963	1964	1965
New South Wales	34,143	42,853	50,921
Victoria	33,178	46,023	43,545
Queensland	6,995	8,837	10,546
South Australia	13,112	19,985	22,337
Western Australia	10,383	10,316	11,613
Tasmania	1,240	1,567	1,787
Northern Territory	196	327	374
Australian Capital Territory	827	1,024	1,145
Not stated(a)	8,076	3,532	5,239
Total	108,150	134,464	147,507

(a) Includes also persons passing through the migrant reception centre who were not placed by the end of the month following the quarter of arrival.

Former settlers and other residents departing—country of intended future residence. The principal countries of intended future residence (i.e. for a period of twelve months or more) of persons departing permanently during the years 1964 and 1965 are shown in the table following. Separate figures are given for 'former settlers' departing permanently (see definition on page 210) and other residents departing permanently.

**OVERSEA ARRIVALS AND DEPARTURES—PERMANENT DEPARTURES
COUNTRY OF INTENDED FUTURE RESIDENCE(a), AUSTRALIA, 1964 AND 1965**

Country of intended future residence(a)	Permanent departures, 1964			Permanent departures, 1965		
	Former settlers	Other residents	Total	Former settlers	Other residents	Total
United Kingdom and Ireland	2,988	1,777	4,765	7,605	1,221	8,826
Canada	411	386	797	455	378	833
New Zealand	1,443	1,676	3,119	2,103	1,779	3,882
Papua and New Guinea	137	1,093	1,230	146	1,085	1,231
Other Commonwealth Countries	246	378	624	479	383	862
<i>Total, Commonwealth countries</i>	<i>5,225</i>	<i>5,310</i>	<i>10,535</i>	<i>10,788</i>	<i>4,846</i>	<i>15,634</i>
Germany	342	267	609	576	127	703
Italy	127	198	325	256	62	318
Netherlands	391	242	633	588	143	731
Other European countries	517	395	912	982	194	1,176
United States of America	869	544	1,413	1,052	528	1,580
Other countries	357	299	656	561	210	771
<i>Total, foreign countries</i>	<i>2,603</i>	<i>1,945</i>	<i>4,548</i>	<i>4,015</i>	<i>1,264</i>	<i>5,279</i>
Grand total	7,828	7,255	15,083	14,803	6,110	20,913

(a) For a period of twelve months or more.

Long-term and short-term movement—oversea visitors arriving and residents departing

The number of *oversea visitors arriving in Australia* and the number of *Australian residents departing from Australia* are shown in the following table classified by mode of transport. The figures exclude persons classified to permanent movement. Visitors arriving and residents departing who are classified to short-term movement are shown according to stated purpose of travel also.

**OVERSEA ARRIVALS AND DEPARTURES—LONG-TERM AND SHORT-TERM
MOVEMENT: MODE OF TRANSPORT, AND STATED PURPOSE OF TRAVEL
(SHORT-TERM ONLY), AUSTRALIA, 1963 TO 1965**

Particulars	1963			1964			1965		
	Sea	Air	Total	Sea	Air	Total	Sea	Air	Total

OVERSEA VISITORS ARRIVING

Short-term movement—									
In transit	4,336	23,012	27,348	4,897	26,686	31,583	4,369	29,702	34,071
Business	543	21,287	21,830	495	25,965	26,460	751	31,419	32,170
Holiday	11,769	49,406	61,175	11,700	60,506	72,206	13,405	75,686	89,091
Education	243	5,999	6,242	261	6,457	6,718	268	6,764	7,032
Other and not stated	1,175	7,607	8,782	1,563	9,348	10,911	1,498	9,466	10,964
<i>Total, short-term</i>	<i>18,066</i>	<i>107,311</i>	<i>125,377</i>	<i>18,916</i>	<i>128,962</i>	<i>147,878</i>	<i>20,291</i>	<i>153,037</i>	<i>173,328</i>
Long-term movement—									
<i>Total, long-term</i>	<i>4,427</i>	<i>9,386</i>	<i>13,813</i>	<i>4,140</i>	<i>10,880</i>	<i>15,020</i>	<i>5,014</i>	<i>12,483</i>	<i>17,497</i>

RESIDENTS DEPARTING

Short-term movement—									
Business	1,453	22,248	23,701	1,405	26,253	27,658	1,929	30,354	32,283
Holiday	36,512	39,663	76,175	39,620	51,401	91,021	45,806	65,200	111,006
Education	487	1,221	1,708	479	1,688	2,167	486	1,879	2,365
Other and not stated	2,601	8,242	10,843	2,281	10,121	12,402	2,917	13,121	16,038
<i>Total, short-term</i>	<i>41,053</i>	<i>71,374</i>	<i>112,427</i>	<i>43,785</i>	<i>89,463</i>	<i>133,248</i>	<i>51,138</i>	<i>110,554</i>	<i>161,692</i>
Long-term movement—									
<i>Total, long-term</i>	<i>27,930</i>	<i>10,387</i>	<i>38,317</i>	<i>28,195</i>	<i>12,763</i>	<i>40,958</i>	<i>29,780</i>	<i>16,533</i>	<i>46,313</i>

Assisted migration into Australia

Since 1945 successive Australian Governments have pursued an immigration policy which has included the granting of financial assistance to selected migrants from overseas countries. This assistance has in some cases been matched or partly matched by contributions from the government of the emigration country and from international funds. The basis of operation has varied from country to country—in some cases bilateral migration agreements have been negotiated; in some migration arrangements have been made through the Intergovernmental Committee for European Migration (ICEM); and in others unilateral assistance has been given by the Australian Government. In the following table particulars are shown of the total numbers of persons who were assisted to come to Australia by the Australian Government under all assisted passage schemes during the period 1946 to 1965.

ASSISTED MIGRATION: AUSTRALIA, 1946 TO 1965

Period	Nominated and selected (assisted) arrivals
1946-50	273,195
1951-55	275,241
1956-60	305,517
1960	68,254
1961	55,685
1962	45,276
1963	62,914
1964	79,604
1965	93,653

Joint Commonwealth and States scheme

Details of the joint scheme of assisted immigration arrived at by agreement between the Commonwealth and State Governments, which operated from 1920 to 1939, were published in earlier issues of the Year Book (see No. 38, page 576). After the outbreak of hostilities in 1939 it was decided to discontinue the grant of assisted passages for the duration of the war.

Migration from Britain

At the conclusion of the 1939-45 War two migration agreements were negotiated between the Australian and British Governments and signed on 5 March 1946. These agreements came into operation on 31 March 1947, and provided respectively for granting free passages to British ex-servicemen and their dependants and assisted passages to other residents of Britain wishing to settle permanently in Australia. The free passage agreement was terminated on 28 February 1955, but the assisted passage agreement has continued in operation by renewal from time to time. The current assisted passage agreement came into force on 1 June 1962, and continues until 31 March 1967.

Assisted passages. Under the present agreement the British Government contributes £Stg.150,000 per annum towards the cost of the movement of migrants to Australia. Each migrant 19 years of age or over contributes £Stg.10 towards his passage costs. Migrants under 19 years of age make no contribution. The Australian Government meets the balance of the overall transport costs.

Eligibility for consideration for assisted passages under current arrangements is confined generally to citizens of the United Kingdom and colonies, normally resident in Britain. Subject to those broad conditions of eligibility, there are six categories of applicants who may be granted assisted passages under current arrangements.

Personal nominees—persons sponsored by relatives or friends already established in Australia who provide accommodation for their nominees.

Group nominees—workers and their dependants sponsored or selected to fulfil nominations lodged by public and private employers.

Commonwealth nominees—workers and their dependants selected to meet labour requirements within industry generally in Australia.

'Bring out a Briton' nominees—migrants sponsored by special voluntary committees formed throughout Australia to stimulate the flow of British migrants through community effort.

Single men and women and married couples without children—migrants with a minimum capital of £Stg.25 each, selected without specific nomination who are prepared to make their own accommodation arrangements upon arrival.

'Nest-egg families'—unnominated families having a minimum capital of £Stg.1,000 and prepared to make their own accommodation arrangements on arrival.

Hostels are provided by the Australian Government for the initial accommodation of nominees. State Governments provide transit accommodation for certain groups of migrants.

Number of arrivals. The numbers of British migrants who came to Australia under the Free and Assisted Passage Agreement during the period January 1947 to June 1965 are given in the following table according to the State of proposed destination.

UNITED KINGDOM FREE AND ASSISTED PASSAGE AGREEMENT: NUMBER OF MIGRANTS(a), STATES AND TERRITORIES, JANUARY 1947 TO JUNE 1965

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	A.C.T. and N.T.	Cwth nominees(b)	Total
Jan. 1947–June 1960	76,366	87,750	40,755	29,445	31,682	11,337	3,676	85,157	366,168
1960–61	6,313	6,186	2,579	3,308	1,613	637	234	13,830	34,700
1961–62	5,804	4,433	2,595	3,317	2,094	509	157	8,161	27,070
1962–63	8,093	6,118	2,980	4,512	5,294	677	271	13,755	41,700
1963–64	12,272	10,791	4,272	10,509	4,894	909	316	10,667	54,630
1964–65	18,353	12,737	4,997	11,155	5,259	1,166	336	16,685	70,688
Total, January 1947 to June 1965	127,201	128,015	58,178	62,246	50,836	15,235	4,990	148,255	594,956

(a) Includes child migrants as shown below.

(b) See text page 215 for explanation.

Child migration from Britain

The pre-war arrangements under which child migrants were brought to Australia under the sponsorship of various religious denominations and voluntary organizations were resumed in 1947. Under current arrangements these young migrants receive assisted passages and special maintenance provisions involving the British Government and the Australian and State Governments. From the beginning of 1947 to 30 June 1965 a total of 7,507 British child and youth migrants arrived under sponsorship, 5,101 to New South Wales, 1,373 to Western Australia, 578 to Victoria, and 455 to the other States. These arrivals are included in the table above.

Maltese migration

The Australian Government and the Government of Malta entered into an agreement on 28 April 1965, under which financial assistance is granted jointly towards the movement to Australia of approved migrants from Malta. The agreement supersedes earlier ones signed in 1948 and 1956. ICEM (Intergovernmental Committee for European Migration—see page 218) is associated with the assisted migration arrangements under this agreement. Up to 30 June 1965 a total of 35,264 Maltese had arrived under the assisted passage scheme.

Netherlands migration

On 1 April 1951 a migration agreement between the Netherlands and Australia came into operation under which selected Dutch workers and their dependants could receive assisted passages to Australia. This superseded an earlier arrangement made in 1946 between the Netherlands Emigration Foundation and Australia (see Year Book No. 39, page 56). The 1951 agreement continued in operation under extensions until the signing of the Australia-Netherlands Migration and Settlement Agreement on 1 June 1965. In accordance with Article II of that Agreement an 'Australian-Netherlands Assisted Passage Migration Arrangement' was negotiated to come into force concurrently with the Agreement. The Agreement is for a basic period of five years but will then continue indefinitely subject to termination at one year's notice by either Party. The 'Arrangement' will normally run for the same period as the 'Agreement' but may be terminated at 180 days' notice by either Party.

Contributions to passage costs under the arrangement are made by the migrant and the Netherlands and Australian Governments. The Australian Government is responsible for the reception of assisted migrants and for general assistance towards their settlement in Australia. ICEM (*see* page 218) is associated with the assisted migration arrangements under this agreement. Up to 30 June 1965, 68,201 Dutch assisted migrants had arrived in Australia.

Italian migration

On 1 August 1951 a migration agreement between Italy and Australia came into operation under which selected Italian workers and their dependants could receive assisted passages to Australia. The agreement was temporarily suspended at the end of 1952 but was resumed at the end of 1954. It continued in operation under extensions until 31 January 1964. Negotiations are in course for a revised agreement and, in the meantime, provision has been made for assisted migration on a limited scale to continue under the previous arrangements. Contributions to passage costs under the agreement are made by the migrant and the Italian and Australian Governments. The Australian Government is responsible for the reception of assisted migrants and for general assistance towards their settlement in Australia. ICEM (*see* page 218) is associated with the assisted migration arrangements under this agreement. Up to 30 June 1965, 41,028 Italian assisted migrants had settled in Australia.

German migration

On 29 August 1952 a migration agreement was signed between the Federal Republic of Germany and Australia under which selected German workers and their dependants could receive assisted passages to Australia. The agreement was renewed for five years from 29 August 1957, but assisted migration under the terms of the 1957 agreement continued until a new agreement was signed on 21 June 1965, to run indefinitely subject to one year's notice of termination by either party. Contributions to passage costs under the agreement are made by the migrant and the Governments of the Federal Republic of Germany and Australia. The Australian Government is responsible for the reception of assisted migrants and for general assistance towards their settlement in Australia. ICEM (*see* page 218) is associated with the assisted migration arrangements under this agreement. Up to 30 June 1965, 75,671 German assisted migrants had settled in Australia.

Austrian migration

Late in 1952 arrangements were made between the Austrian Government, the Australian Government and ICEM (*see* page 218) under which selected Austrian workers and their dependants could receive assisted passages to Australia. These arrangements still apply. The contribution formula towards passage costs has varied from time to time, but at present contributions are made by the migrant and the Australian Government. The Australian Government is responsible for the reception of assisted migrants and for general assistance towards their settlement in Australia. Up to 30 June 1965, 18,485 Austrian assisted migrants had settled in Australia.

Greek migration

Late in 1952 arrangements were made between the Greek Government, the Australian Government and ICEM (*see* page 218) under which selected Greek workers and their dependants could receive assisted passages to Australia. These arrangements still apply. Contributions to passage costs are made by the migrant, the Greek and Australian Governments and ICEM. The Australian Government is responsible for the reception of assisted migrants and for general assistance towards their settlement in Australia. Up to 30 June 1965, 39,748 Greek assisted migrants had settled in Australia.

Spanish migration

In 1958 arrangements were made between the Spanish Government, the Australian Government and ICEM (*see* page 218) under which selected Spanish workers and their dependants could receive assisted passages to Australia. At the request of the Spanish authorities these arrangements, so far as workers are concerned, were temporarily suspended in March 1963. Since then certain female dependants nominated by Spanish assisted migrants already in Australia have continued to arrive in Australia as assisted migrants, and negotiations are in course with a view to restoring the previous assisted passage arrangements for workers and their dependants. Contributions to passage costs are made by the migrant, the Spanish and Australian Governments and ICEM. The Australian Government is responsible for the reception of assisted migrants and for general assistance towards their settlement in Australia. Up to 30 June 1965, 8,007 Spanish assisted migrants had settled in Australia.

Belgian migration

On 1 February 1961 arrangements were made between the Belgian Government, the Australian Government and ICEM (*see below*) under which selected Belgian workers and their dependants could receive assisted passages to Australia. These arrangements still apply. Contributions to passage costs are made by the migrant and the Belgian and Australian Governments. The Australian Government is responsible for the reception of assisted migrants and for general assistance towards their settlement in Australia. Up to 30 June 1965, 1,625 Belgian assisted migrants had settled in Australia.

Refugee migration

By agreement with the International Refugee Organization, Geneva, on 21 July 1947, Australia undertook to provide resettlement opportunities for Displaced Persons. A total of 170,700 Displaced Persons arrived in Australia under this agreement in the following years. The International Refugee Organization was terminated in 1951 and refugee problems became the responsibility of the United Nations High Commissioner for Refugees, whose office was created by the United Nations specifically for this purpose. At about the same time ICEM was established (*see below*) partly to provide arrangements for the actual resettlement overseas of refugees, particularly in regard to transport.

Australia has continued to provide resettlement opportunities for refugees from Europe and elsewhere. In the period from 1945 to 30 June 1965, 120,279 refugees had been resettled in Australia additional to the 170,700 Displaced Persons mentioned above. Of the total number of refugees received by Australia since the end of World War II up to 30 June 1965, 211,265 have received financial assistance from the Australian Government towards their passage costs.

General Assisted Passage Scheme

This scheme has operated since 10 September 1954, and provides for a contribution by Australia towards passage costs to be granted to selected workers and their dependants from a number of countries including the United States of America, Switzerland, the Scandinavian countries, Eire, France, and the Latin American countries. It also covers certain British subjects resident outside the United Kingdom and certain European nationals outside their countries of origin. Australia provides for the reception of migrants accepted under this scheme and for general assistance towards their settlement in Australia. Up to 30 June 1965, 27,120 assisted migrants had settled in Australia under the General Assisted Passage Scheme.

The Intergovernmental Committee for European Migration (ICEM)

This Committee, like the office of the United Nations High Commissioner for Refugees, was established to perform functions that had formerly been carried out by the International Refugee Organization. In addition to assuming responsibility for the resettlement of refugees, ICEM has been concerned also with the movements of national migrants from Europe. Australia was one of the sixteen foundation members of the Committee; there are now thirty member countries including the British Commonwealth countries of Australia, New Zealand, the United Kingdom and Malta.

The three main functions of ICEM are:

- (a) the movement of national migrants and the provision of related services;
- (b) the resettlement of refugees and the provision of related services; and
- (c) developmental activities and technical co-operation (this includes activities such as language teaching, vocational and orientation training, and in particular measures to facilitate the acceptance of European migrants by Latin American countries).

Each member government is required to contribute an agreed percentage of the Committee's administrative expenditure. Contributions to its operational expenditure are voluntary and governments may stipulate the terms and conditions under which they are to be used.

Up to 30 June 1965 ICEM had moved 1,383,000 persons, of whom 429,300—313,600 nationals and 115,700 refugees—had departed for Australia. For its purposes ICEM records as refugees migrants who are so classified by the country of asylum from which they are moved. This classification does not in all cases accord with the classification adopted by Australia in recording their arrival.

Summary of arrivals of assisted migrants

The following table shows the number of assisted migrants who arrived in Australia in each of the last six financial years and since January 1947.

ARRIVALS UNDER ASSISTED MIGRATION SCHEMES: AUSTRALIA, JANUARY 1947
TO JUNE 1965

Assisted migration scheme	January 1947 to June 1960	1960-61	1961-62	1962-63	1963-64	1964-65	January 1947 to June 1965
Austrian	15,029	1,494	227	372	594	769	18,485
Belgian . . . . .	..	232	506	414	318	155	1,625
General Assisted Passage(a)	12,553	3,527	2,234	1,874	3,327	3,605	27,120
German	55,462	10,151	2,234	1,967	2,987	2,870	75,671
Greek	26,710	2,086	2,761	2,051	2,633	3,507	39,748
Italian	36,180	3,013	1,255	227	195	158	41,028
Maltese	25,413	1,099	931	1,501	2,665	3,655	35,264
Netherlands	55,636	5,728	2,349	1,352	1,585	1,551	68,201
Refugee	201,882	3,413	946	1,375	2,040	1,609	211,265
Spanish	775	1,230	1,549	4,326	78	49	8,007
United Kingdom	366,168	34,700	27,070	41,700	54,630	70,688	594,956
Other schemes	28,359	323	..	..	..	..	28,682
Total	824,167	66,996	42,062	57,159	71,052	88,616	1,150,052

(a) Mostly Scandinavians, U.S. Americans, and British nationals from countries other than the United Kingdom.

NOTE. (i) All arrivals indicated in this table have obtained some financial assistance from the Australian Government towards payment of their passage money. Transport to Australia for the migrants concerned has been arranged on (a) ships under charter to the Department of Immigration, (b) ships and aircraft under charter to the Intergovernmental Committee for European Migration, and (c) normal commercial shipping and airlines.

(ii) The arrivals under these schemes include a small number of nationals of countries other than those referred to, and stateless persons.

The regulation of immigration into Australia

Powers and legislation of the Commonwealth

Under section 51 (xix), (xxvii) and (xxviii) of the Commonwealth Constitution, the Parliament of the Commonwealth is empowered to make laws with respect to immigration, emigration, aliens and the influx of criminals. Immigration into Australia is regulated by the *Migration Act 1958-1964* which came into force on 1 June 1959 and repealed the *Immigration Act 1901-1949* and the *Aliens Deportation Act 1948*.

Any immigrant entering Australia after the commencement of the Act without having been granted an 'entry permit' or who is not within an exempted class is a prohibited immigrant. Exempted persons include diplomatic, consular and trade representatives of other countries, and seamen who enter on leave while their ships are in Australian ports. For the purposes of the Migration Act an immigrant includes a person entering for temporary stay.

An entry permit is normally granted at the port of entry by means of a stamp in the traveller's passport or equivalent travel document. There is no form of application involved. Temporary entry permits are granted to persons who have been authorized to enter for a limited period only. Persons eligible to enter for indefinite residence are granted permits of unrestricted validity. A person who is refused an entry permit must be kept on board the ship on which he arrives, otherwise the shipping company is liable to a fine of \$1,000.

The Act abolished the 'Dictation Test' as a means of excluding or deporting ineligible persons. Other deportation powers which were contained in the repealed legislation were largely re-enacted, although with some revision. It revised the law relating to the emigration of Aborigines and children, repealing the *Emigration Act 1910*.

The Act does *not* affect passport or visa requirements for entry to Australia. All persons who, prior to the 1958 Act, had been required before embarkation to obtain visas or other kinds of authority to proceed to Australia, are still required to obtain them. Likewise, persons who have not had to obtain prior authority to proceed to Australia are not now required to obtain such authority solely as a result of the Act. Persons previously allowed to enter without production of passports—notably British people arriving from New Zealand—are still able to do so.

The *Aliens Act 1947-1965* provides that a register of aliens shall be maintained for every State and mainland Territory of Australia. Unless exempted, aliens 16 years of age and over are required to register with the Department of Immigration and to notify the Department of their address, occupation, or employment during the month of September each year. They are required to notify marriage within thirty days of marriage taking place. The Act provides also that the consent of the Department must be obtained before an alien may change his surname.

The *Immigration (Guardianship of Children) Act 1946-1952* provides that the Minister for Immigration becomes the legal guardian of every person under the age of 21 years who enters Australia (except for certain groups exempted) other than in charge of, or for the purpose of living in the care of, a parent or adult relative. It is primarily administered through the Child Welfare authorities in each State and mainland Territory who, as the Minister's delegates under the Act, supervise the welfare of each 'immigrant child'.

Conditions of immigration into Australia

Admission of non-Europeans. Australia's immigration policy is based on the need to maintain a predominantly homogeneous population. It is fundamental to the policy that those people coming to Australia for residence should be capable, both economically and socially, of ready integration into the community.

Australia does not exclude from residence persons of other than European origin. Immigration laws and policy permit the Minister to exercise discretion, taking into account the qualifications of persons wishing to settle here, their ability to integrate readily into the community, and other aspects including considerations of a humanitarian nature and broad national interest.

There are in Australia some 38,400 non-Europeans. Of these, 16,200 are Australian citizens (10,800 by birth and 5,400 by naturalization or registration), while 4,200 have resident status but have not sought or qualified for citizenship. The remaining 18,000 comprise 4,300 non-Europeans who have been admitted, in some instances with their families, in a variety of categories with temporary residence status, 1,100 visitors, and an Asian and other non-European student population of 12,600 (including 1,600 government-sponsored students and 11,000 private students).

The present policy provides, *inter alia*, that:

- non-Europeans, who are the spouses, unmarried minor children, aged parents or fiancées of Australian citizens, or of British subjects who have or will have resident status in Australia, may be admitted with the same status;

- non-Europeans who have already been admitted under temporary permit but with the expectation of indefinite stay may, after completing five years' residence, qualify to apply for resident status and subsequently for citizenship.

The following are examples of persons who may be considered for entry with a view to settlement, accompanied by their wives and children, on the basis of their general suitability, ability to integrate and qualifications positively useful to Australia. Those admitted are able, after five years' stay on temporary permit, to apply for resident status and citizenship:

- persons with specialized technical skills for appointments for which local residents are not available;

- persons of high attainment in the arts and sciences, or of prominent achievement in other ways;

- persons nominated by responsible authorities or institutions for specific important professional appointments, which otherwise would remain unfilled;

- executives, technicians, and other specialists who have spent substantial periods in Australia—for example, with the branches here of large Asian companies—and who have qualifications or experience in positive demand here;

- businessmen who in their own countries have been engaged in substantial international trading and would be able to carry on such trade from Australia;

- persons who have been of particular and lasting help to Australia's interest abroad in trade, or in other ways;

- persons who by former residence in Australia or by association with us have demonstrated an interest in or identification with Australia that should make their future residence here feasible.

In addition to visitors and students, provision exists also for the entry on a limited temporary residence basis of staffs of companies, professional, technical and specialist personnel, and of persons coming for medical treatment, religious training, or as sportsmen and entertainers, and in other miscellaneous categories.

Private students. Young people may enter Australia for the purpose of study, irrespective of their countries of origin. The greater proportion of such private students in Australia are, however, from Asia, the Pacific area and, to a lesser extent, from the continent of Africa (there are at present some 11,000 Asian and other non-European private students in Australia). The objective is to provide the opportunity for young people in these areas to come to Australia for advanced secondary, tertiary and other post-secondary study and training which will result in qualifications in demand and of use in their countries. The student, as well as meeting other requirements of entry, must have the capacity to undertake the course of study proposed, and produce evidence of enrolment and assurances as to maintenance and accommodation. The student is admitted with temporary residence status on the understanding that he will return to his own country when the course of approved study is completed. Extensions of stay are dependent normally upon satisfactory progress being made with his studies.

Persons of European race. Maltese, Cypriots, and aliens of European race desiring to settle permanently in Australia are required to obtain authority for admission from the Department of Immigration or an Australian overseas post. Their admission under the present policy is subject to their compliance with Australia's requirements with regard to health, character, freedom from security risk, and general suitability as settlers.

General information. General information about conditions of entry into Australia may be obtained from the following officers:

- (a) in Australia—the Secretary, Department of Immigration, Canberra, Australian Capital Territory, and Commonwealth Directors of Migration in the capital cities of the various States;
- (b) in overseas countries—from migration officers or from Australian diplomatic posts (a complete list of these is given in the chapter International Relations).

Passports

Australian passports are issued, under the *Passports Act 1938–1948* and Passport Regulations, to Australian citizens. Diplomatic passports are issued to persons travelling on official missions of a diplomatic character. Official passports are granted to persons travelling on the official business of the Commonwealth or a State Government. Australian passports are obtainable on application at offices of the Commonwealth Department of Immigration in each State and internal Territory of Australia or from overseas offices of that Department, from any Australian diplomatic or consular mission abroad, or from the office of any Australian Government Trade Commissioner overseas. Applicants for passports must furnish evidence of their identity and nationality and pay a fee of two dollars. Approximately 85,000 Australian passports are issued each year in Australia and abroad.

Citizenship and naturalization

Commonwealth legislation

The *Nationality and Citizenship Act 1948* commenced on Australia Day (26 January) 1949, and repealed all previous Commonwealth legislation on this subject. The most significant effect of the Act was the creation for the first time of the status of 'Australian Citizen'. In this respect the Act was complementary to citizenship legislation passed or about to be passed by other countries of the British Commonwealth. All Australian citizens, and the citizens of other countries of the British Commonwealth, are declared to be British subjects. Australian citizenship was automatically acquired as from 26 January 1949 by persons who were British subjects at that date and who either (a) were born in Australia or New Guinea; or (b) were naturalized in Australia; or (c) had been residing in Australia during the five years immediately preceding 26 January 1949; or (d) were born outside Australia of fathers to whom (a) or (b) above applied (provided the persons concerned had entered Australia without being placed under any immigration restriction); or (e) were women who had been married to men who became Australian citizens under the above headings (provided that the women concerned had entered Australia without being placed under immigration restriction). For the purposes of the Act, 'Australia' includes Norfolk Island and the Territory of Papua, and by an amendment of the Act in 1950 it was further provided that Nauru shall be treated in the same manner as New Guinea.

Citizenship may be acquired in the following ways: (a) by birth in Australia; (b) by birth outside Australia, of a father who is an Australian citizen, provided that the birth is registered at an Australian Consulate; (c) by registration—Certificates of Registration as Australian citizens may be granted by the Minister to British subjects or Irish citizens who make application and satisfy the Minister that they can comply with specified requirements as to residence in Australia, good character and intention to reside permanently in Australia; (d) by naturalization—

Certificates of Naturalization as Australian citizens may be granted by the Minister to aliens who make application and can comply with requirements somewhat similar to those previously required under the *Nationality Act* 1920-1946. Requirements for naturalization are: (i) as a rule five years residence in Australia is required, but residence in other British countries or service under a British government may be accepted (special concessions in the matter of residence qualifications in respect of persons who have voluntarily enlisted in the armed forces were made by an amending Act of 1952); (ii) the applicants must have an adequate knowledge of the responsibilities and privileges of citizenship; (iii) Certificates do not take effect until the applicant takes the oath of allegiance. The oath is now taken, and citizenship is conferred, at public ceremonies held in the locality of the applicant's place of residence, and presided over by the mayor or equivalent head of the local government authority.

The declaration of intention to apply for naturalization, which was introduced by the original Act of 1948, is no longer compulsory, although it can still be made if an intending applicant so desires. This change was made by the amending Acts of 1955 and 1959 under the provisions of which aliens may lodge applications on completing 4½ years residence, but may not be granted naturalization until five years residence has been completed.

Under the Act the independence of married women in nationality matters is recognized, and British nationality is restored to those women who had lost it through marriage to aliens. Marriage does not affect a woman's nationality. Alien women who marry Australian citizens may, however, be naturalized under somewhat easier conditions than those which apply to other aliens.

Persons granted Australian citizenship by naturalization and registration during 1964-65

The following tables show:

- the number of persons who became Australian citizens by reason of the grant of certificates of naturalization and the countries in which such persons were ordinarily resident immediately before entering Australia or New Guinea; and
- the number of persons who became Australian citizens by reason of the grant of certificates of registration and the countries in which such persons were ordinarily resident immediately prior to entering Australia or New Guinea.

PERSONS GRANTED AUSTRALIAN CITIZENSHIP BY NATURALIZATION, 1964-65 NATIONALITY

Albanian	30	Jordanian	6
Australian protected persons	143	Korean	1
Austrian	709	Latvian	362
Argentinian	4	Lebanese	291
Belgian	25	Lithuanian	194
Bolivian	1	Mexican	1
Brazilian	5	Nicaraguan	4
British protected persons	4	Norwegian	78
Bulgarian	43	Philippine	10
Burmese	2	Polish	2,572
Byelorussian	26	Portuguese	30
Chilean	1	Romanian	107
Chinese	299	Russian	639
Costa Rican	2	Spanish	90
Cuban	4	Stateless	354
Czechoslovak	234	Swedish	41
Danish	192	Swiss	116
Dutch	4,648	Syrian	5
Estonian	102	Thai	2
Finnish	370	Tunisian	1
French	133	Turkish	29
German	3,181	Ukrainian	546
Greek	4,145	United Arab Republic	18
Hungarian	1,703	United States of America	100
Icelandic	1	Venezuelan	3
Indonesian	11	Vietnamese	4
Iranian	2	Western Samoan	1
Israeli	358	Yugoslav	2,775
Italian	7,812		
Japanese	31		
		Total	32,601

PERSONS GRANTED AUSTRALIAN CITIZENSHIP BY NATURALIZATION, 1964-65—
continued

COUNTRIES IN WHICH PERSONS ORDINARILY RESIDED IMMEDIATELY BEFORE
 ENTERING AUSTRALIA OR NEW GUINEA

Aden	3	Luxembourg	1
Afghanistan	1	Macao	2
Albania	15	Madagascar	1
Argentina	19	Malaysia	12
Austria	1,623	Mexico	3
Belgium	81	Morocco	18
Bolivia	5	Nauru	3
Brazil	34	Netherlands	4,529
British Solomon Islands	5	New Caledonia	23
Bulgaria	3	New Hebrides	3
Burma	8	New Zealand	33
Byelorussia	1	Norway	83
Canada	18	Pakistan	1
Ceylon	1	Panama	1
Chile	10	Papua and New Guinea	160
China	815	Paraguay	1
Colombia	1	Peru	1
Costa Rica	1	Philippines	15
Cyprus	5	Poland	842
Czechoslovakia	72	Portugal	21
Denmark	216	Portuguese Timor	1
Dominican Republic	2	Romania	91
Estonia	9	Senegal	1
Ethiopia	12	Sierra Leone	1
Fiji	2	Singapore	2
Finland	348	Somalia	2
France	308	South Africa	19
Germany	6,142	Southern Rhodesia	2
Gilbert Islands	1	Spain	81
Ghana	2	Sudan	2
Greece	3,785	Sweden	72
Guatemala	1	Switzerland	205
Hong Kong	117	Syria	5
Hungary	871	Tahiti	2
Iceland	1	Tanzania	6
India	11	Thailand	3
Indonesia	165	Tonga	3
Iran	12	Tunisia	2
Iraq	2	Turkey	36
Ireland	2	Uganda	4
Israel	401	Ukraine	15
Italy	8,416	United Arab Republic	438
Japan	34	United Kingdom	277
Jordan	4	United States of America	135
Kenya	2	Union of Soviet Socialist Republics	32
Korea	1	Uruguay	1
Kuwait	1	Venezuela	19
Latvia	30	Vietnam	5
Lebanon	289	Yugoslavia	1,465
Libya	3		
Lithuania	10		
		Total	32,601

The numbers of persons affected by certificates of naturalization granted in 1964-65 according to State or Territory of residence were as follows: New South Wales, 9,895; Victoria, 13,417; Queensland, 2,200; South Australia, 3,787; Western Australia, 2,086; Tasmania, 505; Northern Territory, 100; Australian Capital Territory, 424; New Guinea, 187; Total, 32,601.

PERSONS GRANTED AUSTRALIAN CITIZENSHIP BY REGISTRATION, 1964-65
NATIONALITY

Citizens of—		
Canada	30	
Ceylon	382	
Cyprus	147	
India	156	
Ireland	98	
Malawi	1	
Malaysia	61	
Malta	313	
Citizens of—		
New Zealand	59	
Pakistan	28	
South Africa	210	
Southern Rhodesia	61	
United Kingdom and Colonies	2,455	
Zambia	1	
Total	4,002	

COUNTRIES IN WHICH PERSONS ORDINARILY RESIDED IMMEDIATELY BEFORE
ENTERING AUSTRALIA OR NEW GUINEA

Argentina	5	Malta	281
Austria	1	Mauritius	2
Belgium	2	Mexico	1
Brazil	1	Nauru	1
Burma	27	Netherlands	5
Canada	39	New Zealand	74
Ceylon	382	Nigeria	1
China	9	Norway	3
Cyprus	129	Pakistan	36
Ellice Islands	1	Papua and New Guinea	6
Falkland Islands	2	Philippines	7
Fiji	23	Southern Rhodesia	62
France	3	Romania	1
French Somaliland	1	Seychelles Islands	1
Germany	6	South Africa	220
Greece	7	Spain	2
Hong Kong	43	Sudan	2
India	285	Switzerland	1
Indonesia	9	Syria	1
Iran	1	Tanzania	1
Ireland	71	Thailand	1
Israel	4	Uganda	2
Italy	16	United Arab Republic	156
Japan	5	United Kingdom	1,785
Kenya	76	United States of America	16
Korea	2	Vietnam	1
Kuwait	2	Yugoslavia	1
Lebanon	5		
Libya	5		
Malaysia	170	Total	4,002

Population of External Territories

Ordinances of the individual external territories under the control of Australia provide for a census of the population to be taken on the day prescribed for the taking of a census in the Commonwealth of Australia. The following table shows the population of the Territories of Christmas Island, Cocos (Keeling) Islands, Norfolk Island, Papua, the Trust Territory of New Guinea and the Trust Territory of Nauru at the census of 30 June 1961, and as estimated at 30 June 1965.

POPULATION: EXTERNAL TERRITORIES, 30 JUNE 1961 AND 1965

Territory	Census 30 June 1961			Estimate 30 June 1965
	Males	Females	Persons	Persons
Christmas Island	1,963	1,136	3,099	3,333
Cocos (Keeling) Islands	333	273	606	674
Norfolk Island	421	423	844	980
Papua	(a) 5,490	(a) 4,304	(a) 9,794	(b) 573,411
Trust Territory of New Guinea	(a) 9,158	(a) 6,378	(a) 15,536	(b) 1,575,966
Trust Territory of Nauru	3,019	1,594	4,613	5,561

(a) Non-indigenous population only. The indigenous population was estimated to be—Papua, 513,648, Trust Territory of New Guinea, 1,433,383. (b) Total population. The non-indigenous population was estimated to be—Papua, 14,014; Trust Territory of New Guinea, 17,446.

Further particulars concerning the indigenous populations of the territories are given in the chapter The Territories of Australia.

The Aboriginal population of Australia

In Year Book No. 17, pages 951–61, a brief account was given of the Australian Aboriginal population, its origin, its numbers as estimated from time to time and the steps taken for its protection. On pages 914–16 of Year Book No. 22, particulars were shown for each of the States and Territories of Australia at successive periods, while a special article dealing with the estimated number and distribution of the native population at the date of first settlement of the white race in the continent appeared on pages 687–96 of Year Book No. 23.

The Aborigines are scattered over the whole of the mainland, but are mostly in the Northern Territory, Queensland, and Western Australia. Particulars of the number in each State and Territory at the census of 30 June 1961 are shown in the following table. Persons with Aboriginal blood to the extent of one-half and with European blood to the extent of one-half are included in the numbers of the population and are of course enumerated at the census.

ABORIGINAL POPULATION, STATES AND TERRITORIES, 30 JUNE 1961

ABORIGINAL POPULATION, STATES AND TERRITORIES, 30 JUNE 1961									
State or Territory	Full-blood					Other(a) (enumerated at the census)			Total full- blood and other (a)
	Number enumerated at census, 30 June 1961			Estimated number out of contact at census	Total number as recorded or estimated at 30 June 1961	Males	Females	Persons	
	Males	Females	Persons						
New South Wales	791	697	1,488	..	1,488	6,703	6 525	13,228	14,716
Victoria	141	112	253	..	253	758	785	1,543	1,796
Queensland	4,686	4,000	8,686	..	8,686	5,460	5,550	11,010	19,696
South Australia	1,181	966	2,147	..	2,147	1,426	1,311	2,737	4,884
Western Australia	4,243	3,878	8,121	2,000	10,121	4,108	4,047	8,155	18,276
Tasmania . . . . .	..	..	..	..	..	24	14	38	38
Northern Territory	7,857	7,585	15,442	1,944	17,386	1,156	1,162	2,318	19,704
Aust. Cap. Territory . . . . .	..	..	..	..	..	78	65	143	143
Australia	18,899	17,238	36,137	3,944	40,081	19,713	19,459	39,172	79,253

(a) This category covers persons with European blood to the extent of one-half and blood of the Aboriginal race to the extent of one-half.

Torres Strait Islanders, both full-blood and half European blood, are not included as Aborigines, but are included in the populations shown on pages 192–207. At the 1961 census there were 4,972 full-blood and 245 half European blood Torres Strait Islanders of whom 4,970 and 237 respectively were recorded in Queensland.

International statistics of population

In the following tables the population, density, rate of growth, natural increase and masculinity are shown in respect of all countries which had an estimated population of at least one million persons in 1963, plus Papua. The source of these figures is the 1964 *Demographic Yearbook* which is prepared and published by the Statistical Office of the United Nations. The tables include figures varying in reliability and accuracy, there being considerable variation in the quality of demographic statistics as between countries, but this information has been shown to provide some form of guide as to the magnitude and trend of population movements in overseas countries.

Where the information available to the Statistical Office of the United Nations relates to only part of the population of a country, the population characteristic (e.g., rate of growth), or vital statistics rate (e.g. marriages), has been omitted from the tables, and this is indicated by a footnote. For fuller particulars of the differences in the quality of the statistics and their reliability and for other qualifications, reference should be made to the detailed explanations contained in the *Demographic Yearbook* of the Statistical Office of the United Nations (see particularly Technical Notes on Statistical Tables and footnotes to the tables).

Population, rate of growth and density: world, continents and regions

The following table shows for the world, continents, and regions, estimated population in 1930, 1940, 1950, 1958, 1960 and 1963. The annual rate of increase (per cent), together with the average annual increase, during the period 1958-63, is also shown. Population figures have been adjusted for under-enumeration and errors in estimation. In preparing these figures, the Population Branch of the United Nations revises, from time to time, the estimates for previous years as new data become available, for example, from a census. The figures are estimates only, and as such are subject to a substantial margin of error.

POPULATION, DENSITY, AND RATE OF INCREASE FOR THE WORLD AND CONTINENTS—SELECTED YEARS

(Source: United Nations *Demographic Yearbook*, 1964)

Continent and region	Population								Density (persons per square mile) 1963
	Estimates of mid-year population (millions)						Annual rate of increase 1958-63 (per cent)	Average annual increase 1958-63 (millions)	
	1930	1940	1950	1958	1960	1963			
World total	2,070	2,295	2,517	2,895	2,990	3,160	1.8	53.0	60
Africa	164	191	222	262	273	294	2.3	6.4	26
Western Africa	48	58	67	82	86	93	2.6	2.2	39
Eastern Africa	46	54	63	72	75	80	2.0	1.6	34
Northern Africa	39	44	53	63	66	72	2.5	1.8	21
Middle Africa	21	23	25	28	28	30	1.5	0.4	13
Southern Africa	10	12	14	17	18	19	2.3	0.4	18
America	242	274	329	395	411	439	2.2	8.8	26
Northern America	134	144	166	192	199	208	1.6	3.2	26
Latin America	108	130	163	203	212	231	2.7	5.6	28
Tropical South America	55	67	84	107	112	123	2.8	3.2	23
Middle America	22	27	35	44	47	51	3.0	1.4	52
Temperate Sth. America	19	22	27	32	33	35	1.9	0.6	21
Caribbean	12	14	17	20	20	22	2.1	0.4	241
Asia	1,120	1,244	1,381	1,598	1,651	1,748	1.8	30.0	163
East Asia	591	634	684	772	793	828	1.4	11.2	184
Mainland region	501	533	563	636	654	682	1.4	9.2	158
Japan	64	71	83	91	93	96	1.0	1.0	671
Other East Asia	26	30	38	45	46	50	2.4	1.0	502
South Asia	529	610	697	826	858	920	2.2	18.8	150
Middle South Asia	371	422	479	560	580	621	2.1	12.2	238
South East Asia	127	150	173	210	219	236	2.4	5.2	135
South West Asia	31	38	45	56	59	63	2.4	1.4	36
Europe	355	380	392	418	425	437	0.9	3.8	231
Western Europe	108	113	123	132	135	140	1.2	1.6	368
Southern Europe	93	103	108	116	117	120	0.8	0.8	236
Eastern Europe	89	96	88	95	97	99	0.7	0.8	260
Northern Europe	65	68	73	75	76	78	0.6	0.6	124
Oceania	10.0	11.1	12.7	15.1	15.7	16.8	2.1	0.34	5
Australia and New Zealand	8.0	8.7	10.1	12.2	12.7	13.5	2.0	0.26	5
Melanesia	1.6	1.8	1.9	2.1	2.2	2.3	2.0	0.04	10
Polynesia and Micronesia	0.4	0.6	0.7	0.8	0.8	1.0	3.5	0.04	85
Union of Soviet Socialist Republics	179	195	180	207	214	225	1.6	3.6	26

Population, density, rate of growth, natural increase and masculinity of selected countries

Certain details of the population of the more populous countries within continental groups are shown in the following table. As explained above, reference should be made to the detailed comments contained in the United Nations *Demographic Yearbook*, 1964, regarding geographical units used, boundaries of areas, reliability of estimates, etc.

POPULATION, DENSITY, RATE OF INCREASE, NATURAL INCREASE AND
MASCULINITY—SELECTED COUNTRIES(Source: United Nations *Demographic Yearbook*, 1964)

Country	Popula- tion mid-year 1963 (thous- ands)	Density 1963 (persons per square mile)	Annual rate of increase 1958-63 (per cent)	Natural increase		Masculinity at latest census	
				Year	Rate (per thousand popula- tion)	Year	Rate (number of males per 100 females)
Africa—							
Nigeria	55,620	155	(a)	..	(a)	1963	(a)
United Arab Republic—							
Egypt	27,963	73	2.5	..	(a)	1960	101.2
Ethiopia	21,800	47	1.7	..	(a)	..	(a)
South Africa	17,057	36	2.4	..	(a)	1960	101.1
Congo (Leopoldville)	15,007	16	2.2	1955-57	23	1955-57	94.4
Sudan	12,831	13	2.8	1955	32.2	1956	102.2
Morocco	12,665	73	2.9	1962	27.4	1960	100.1
Algeria	11,600	13	2.2	..	(a)	1960	(a)
Tanzania	9,798	26	1.9	1957	22	1957	92.9
Kenya	8,847	39	2.9	..	(a)	1962	98.1
Ghana	7,340	80	(a)	..	(a)	1960	102.2
Uganda	7,190	78	2.5	1959	22	1959	100.9
Mozambique	6,789	23	1.7	..	(a)	1960	92.0
Madagascar	5,940	26	3.0	..	(a)	1956	125.1
Angola	5,012	10	2.0	..	(a)	1960	104.3
Cameroon	5,008	28	(a)	..	(a)	1953	104.1
Upper Volta	4,650	44	(a)	1960-61	18.6	1960-61	100.8
Tunisia	4,494	93	2.1	1959	21	1956	107.2
Mali	4,394	10	3.5	1960	33	1960-61	(a)
Southern Rhodesia	4,010	26	3.3	1962	34	1962	106.2
Malawi	3,753	80	(a)	..	(a)	1961	(a)
Ivory Coast	3,665	28	3.5	1961	22.8	1957-58	(a)
Zambia	3,496	13	2.8	1963	32	1963	98.4
Guinea	3,360	36	3.0	1955	22	1955	90.8
Senegal	3,326	44	2.3	1960-61	26.6	1960-61	97.1
Niger	3,117	5	3.2	1959-60	25	1960	94.3
Rwanda	2,850	280	2.6	1957	38.3	1952	(a)
Chad	2,800	5	1.5	1959-60	20	1956	(a)
Burundi	2,650	246	4.3	1957	29.2	1952	(a)
Somalia	2,300	10	3.0	..	(a)	1931	(a)
Dahomey	2,250	52	(a)	1961	28	1961	98.0
Sierra Leone	2,190	80	(a)	..	(a)	1963	98.4
Togo	1,565	73	(a)	1961	26	1958-60	91.9
Libya	1,504	3	3.7	1950-54	(a)	1964	108.1
Central African Republic(b)	1,300	5	2.3	1959-60	18	1959-60	(a)
North America—							
United States of America	189,417	52	1.6	1964	11.8	1960	97.1
Mexico	38,416	49	3.2	1964	35.4	1960	99.5
Canada	18,928	5	2.0	1964	16.2	1961	102.8
Cuba	7,203	163	1.8	1955-60	17-25	1953	105.0
Haiti	4,448	414	2.3	1964	22.8	1950	102.2
Guatemala	4,144	98	3.2	1963	30.5	1964	102.7
Dominican Republic	3,334	176	3.6	1955-60	28-38	1960	102.0
El Salvador	2,721	329	3.2	1964	36.4	1961	97.0
Puerto Rico	2,520	733	1.9	1964	23.2	1960	98.0
Honduras	2,024	47	3.2	1955-60	25-35	1961	99.2
Jamaica	1,687	399	1.8	1964	32.4	1960	92.3
Nicaragua	1,541	28	2.9	1955-60	28-40	1963	97.8
Costa Rica	1,344	70	4.5	1964	38.2	1963	100.7
South America—							
Brazil	76,409	23	3.1	1955-60	27-36	1960	(a)
Argentina	21,719	21	1.6	1964	13.5	1960	100.6
Colombia	15,098	34	2.2	1955-60	26-32	1951	90.9
Peru	11,045	23	(a)	1955-60	24-35	1961	99.1
Chile	8,217	28	2.3	1963	21.7	1960	96.2
Venezuela	8,144	23	3.4	1955-60	30-40	1961	102.7
Ecuador	4,726	44	3.1	1955-60	25-35	1962	100.0
Bolivia	3,596	8	1.4	1955-60	16-25	1950	96.2
Uruguay	2,649	36	(a)	..	(a)	1963	98.7
Paraguay	1,903	13	2.4	1955-60	29-38	1962	97.2
Asia—							
China (mainland)	c 646,530	175	(a)	1957	23	1953	107.6
India	460,490	391	2.3	1951-61	18.9	1961	100.3
Indonesia	100,045	174	2.3	1962	21.6	1961	97.3
Pakistan	98,612	269	2.1	1962	26-30	1961	111.0

For footnotes see next page.

POPULATION, DENSITY, RATE OF INCREASE, NATURAL INCREASE AND
MASCULINITY—SELECTED COUNTRIES—*continued*

Country	Popula- tion mid-year 1963 (thous- ands)	Density 1963 (persons per square mile)	Annual rate of increase 1958-63 (per cent)	Natural increase		Masculinity at latest census	
				Year	Rate (per thousand popula- tion)	Year	Rate (number of males per 100 females)
Asia—continued							
Japan	95,899	671	1.0	1964	10.8	1960	96.5
Philippines	30,241	262	3.2	..	(a)	1960	101.8
Thailand	28,835	145	3.0	1956	22	1960	100.4
Turkey in Asia	27,500	93	2.8	..	(a)	1960	103.1
Korea, Republic of	26,868	707	2.8	1960	28.4	1960	100.8
Burma	23,735	91	(a)	1955	15	1941	104.0
Iran	22,182	34	2.4	1963	25.28	1956	103.6
Vietnam (North)	17,800	290	3.4	..	(a)	1960	93.4
Vietnam, Republic of	15,317	233	3.4	1960	17	..	(a)
Afghanistan	14,900	60	2.8	..	(a)	..	(a)
China (Taiwan)	11,696	842	3.5	1964	28.8	1956	103.8
Korea (North)	10,700	231	2.2	..	(a)	..	(a)
Ceylon	10,625	420	2.5	..	(a)	1963	(a)
Nepal	9,700	179	(a)	1952-54	15	1961	97.3
Malaya	7,607	150	3.2	1963	30.5	1957	106.5
Iraq	6,855	39	1.6	..	(a)	1957	100.7
Saudi Arabia	6,600	8	1.9	..	(a)	..	(a)
Cambodia	5,900	85	(a)	1959	21.7	1962	100.9
Syria	5,251	73	4.2	..	(a)	1960	105.6
Yemen	5,000	67	2.6	..	(a)	..	(a)
Hong Kong	3,592	9,016	4.7	1964	24.5	1961	105.8
Israel	2,376	298	3.5	1963	16	1961	103.0
Lebanon	2,200	549	3.0	..	(a)	..	(a)
Laos	1,925	21	2.4	..	(a)	..	(a)
Jordan	1,827	52	2.9	..	(a)	1961	103.5
Singapore	1,775	7,912	3.2	1964	29.7	1957	111.7
Europe—							
Germany—							
Federal Republic of	55,430	580	1.3	1964	7.2	1961	89.4
Eastern Germany	16,095	386	-0.2	1962	4.0	1964	83.7
West Berlin	2,177	11,720	-0.4	1963	-5.9	1961	73.2
East Berlin	1,063	6,832	-0.7	1962	-0.4	1964	(a)
United Kingdom	53,812	572	0.7	1964	7.4	1961	93.7
Italy	50,498	435	0.6	1964	10.4	1961	96.1
France	47,853	225	1.3	1964	7.4	1962	94.6
Spain	31,077	161	0.8	1964	13.5	1960	94.2
Poland	30,691	254	1.3	1964	10.5	1960	93.6
Yugoslavia	19,065	194	1.1	1964	11.4	1961	94.9
Romania	18,813	205	0.8	1964	7.2	1956	94.6
Czechoslovakia	13,951	282	0.7	1963	7.4	1961	95.2
Netherlands	11,967	922	1.4	1964	13.0	1960	99.2
Hungary	10,088	280	0.4	1964	3.1	1960	93.3
Belgium	9,290	787	0.5	1963	4.5	1961	95.8
Portugal	9,037	254	0.7	1964	13.5	1960	92.7
Greece	8,480	166	0.7	..	(a)	1961	95.7
Bulgaria	8,078	189	0.9	1963	8.2	1956	99.6
Sweden	7,604	44	0.5	1964	6.0	1960	99.5
Austria	7,172	223	(a)	1964	6.2	1961	88.1
Switzerland	5,770	363	2.1	1964	9.6	1960	96.9
Denmark	4,684	282	0.7	1964	7.7	1960	98.3
Finland	4,543	34	0.8	1964	8.3	1960	93.0
Norway	3,667	28	0.8	1964	7.9	1960	99.3
Ireland	2,841	104	-0.1	1964	11.1	1961	101.1
Turkey in Europe	2,500	275	3.5	..	(a)	1960	117.0
Albania	1,762	158	3.2	1964	29.1	1960	105.5
Oceania—							
Australia	10,916	3	2.1	1963	12.9	1961	102.2
New Zealand	2,538	23	2.2	1964	15.3	1961	101.0
New Guinea (Aust. Admin.)	1,516	16	2.5	..	(a)	1961	d 143.6
Papua	543	5	2.2	..	(a)	1961	d 127.6
U.S.S.R.—							
Union of Soviet Socialist Republics	224,764	26	1.6	1963	14.0	1959	81.9

(a) Not available or available information relates to a segment of population only. (b) Indigenous population. (c) 1957. (d) Non-indigenous population.

CHAPTER 9

VITAL STATISTICS

The tables in this chapter are confined to the principal characteristics of vital statistics for Australia, and relate, in the main, to the year 1964, except for the totals of marriages, births, deaths and infant deaths, for which it has been possible to include figures for 1965. Comparisons have been restricted, in general, to the individual years 1961 to 1965 and the five-year periods 1941-45 to 1961-65, while age data have been shown in five-year groups. Comparisons over longer periods, together with more detailed figures such as single age particulars and cross-classifications of various characteristics, will be found in the annual bulletin, *Demography*. Commencing with the year 1963 a separate annual bulletin *Causes of Death* has been published. This contains the detailed tables based on the International Statistical Classification of Diseases, Injuries and Causes of Death which were formerly published in *Demography*. Current information is published in the *Monthly Review of Business Statistics*, the *Quarterly Summary of Australian Statistics* and the *Australian Demographic Review* (a mimeographed series issued at intervals throughout the year on population and vital statistics).

Figures of births and deaths for Australia are exclusive throughout of full-blood Aborigines.

Vital statistics for the principal countries of the world are set out in International Vital Statistics at the end of this chapter.

Provisions for registration and compilation of statistics

In Australia vital statistics are compiled from information supplied for the registration of births, deaths and marriages. Each State and Territory has an independent system of registration. Provisions for the civil registration of births, deaths, and marriages have been in force in Tasmania from 1839, in Western Australia from 1841, in South Australia from 1842, in Victoria from 1853, and in New South Wales and Queensland (then part of New South Wales) from 1856. Registration in the Territories is administered by the Commonwealth Government, registration having been taken over in respect of the Northern Territory from South Australia in 1911 and in respect of the Australian Capital Territory from New South Wales in 1930. The authority responsible for the registration of births, deaths and marriages occurring within his particular State or Territory is the Registrar-General (the Government Statist in Victoria) or the Principal Registrar.

Information concerning a birth is required to be supplied within 28 days in the Australian Capital Territory and the Northern Territory, 42 days in South Australia, and 60 days in other States. For the registration of a death the period allowed is 8 days in Tasmania, 10 days in South Australia, 14 days in Western Australia, Australian Capital Territory and Northern Territory, 21 days in Victoria, and 30 days in New South Wales and Queensland.

The *Marriage Act* 1961 came into operation on 1 September 1963, placing the marriage laws of all States, the mainland Territories and Norfolk Island on a uniform basis. Provision is made for the celebration of marriage by ministers of religion registered with the Registrar of Ministers of Religion appointed in each State and Territory by the Attorney-General, and by certain civil officers. In all cases the authorized celebrant is required to register particulars of the parties married with the appropriate registering authority in each State or Territory. The celebrant is requested to register a marriage as soon as practicable and in any case not later than fourteen days after the marriage.

The registration of stillbirths is compulsory in all the States and Territories except Tasmania. Western Australia in 1908 was the first State to introduce compulsory registration, followed by the Australian Capital Territory in 1930, New South Wales in 1935, South Australia in 1937, the Northern Territory in 1949, Victoria in 1953, and Queensland in 1959. Stillbirths are entered in both the birth and death registers in New South Wales and Western Australia, in the birth register in the Australian Capital Territory and the Northern Territory, and in separate stillbirth registers in Victoria, South Australia and Tasmania. Stillbirths are not entered in a register in Queensland but the papers are kept for a period of at least ten years. In this chapter stillbirths have been excluded from all tables of births and deaths and are shown only in those specially relating to stillbirths.

The data for the compilation of vital statistics are obtained from registry records and dispatched, through the Statistical Office in each State and Territory, to the Commonwealth Statistician. The compilation and publication of vital statistics for Australia is one of the functions of the Commonwealth Statistician. The Deputy Commonwealth Statisticians compile and publish statistics relating to their respective States.

Marriages

Numbers of marriages and crude marriage rates

The numbers of marriages registered in each State and Territory in five-year periods from 1941-45 to 1961-65, and for each of the years 1961 to 1965, and crude marriage rates for the same periods are shown in the following tables. Annual averages for each five-year period from 1861 to 1950 were published in Year Book No. 39, page 575. A graph showing the number of marriages in each year from 1870 to 1965 appears on plate 22 of this issue.

MARRIAGES: STATES AND TERRITORIES, 1941 TO 1965

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Annual average—									
1941-45 . . .	28,506	19,450	10,563	6,517	4,668	2,097	71	109	71,981
1946-50 . . .	30,162	20,453	10,666	6,581	5,205	2,529	114	181	75,891
1951-55 . . .	28,483	20,007	10,171	6,290	5,232	2,539	146	234	73,102
1956-60 . . .	28,432	20,422	10,254	6,517	5,145	2,573	190	321	73,854
1961-65 . . .	31,788	23,262	11,437	7,514	5,768	2,700	248	533	83,250
Annual total—									
1961 . . .	29,773	21,264	10,392	6,804	5,150	2,677	207	419	76,686
1962 . . .	30,360	22,393	10,642	7,021	5,466	2,485	243	480	79,090
1963 . . .	30,999	22,061	11,431	7,302	5,755	2,579	260	529	80,916
1964 . . .	32,633	24,169	11,752	7,765	6,023	2,869	233	569	86,013
1965 . . .	35,176	26,421	12,967	8,680	6,448	2,888	296	670	93,546

CRUDE MARRIAGE RATES(a): STATES AND TERRITORIES, 1941 TO 1965

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Average annual rate—									
1941-45 . . .	9.97	9.86	10.04	10.61	9.74	8.61	7.2*	7.6*	9.94
1946-50 . . .	9.90	9.72	9.41	9.87	10.01	9.56	9.4*	9.4*	9.77
1951-55 . . .	8.41	8.34	7.91	8.11	8.44	8.35	9.1*	8.20	8.29
1956-60 . . .	7.70	7.50	7.14	7.26	7.36	7.69	8.63	7.51	7.50
1961-65 . . .	7.84	7.60	7.32	7.44	7.47	7.44	8.42	7.26	7.62
Annual rate—									
1961 . . .	7.61	7.26	6.86	7.02	6.98	7.57	7.9*	7.1*	7.30
1962 . . .	7.63	7.49	6.91	7.10	7.24	6.91	9.0*	7.3*	7.39
1963 . . .	7.65	7.22	7.32	7.24	7.44	7.08	9.1*	7.2*	7.41
1964 . . .	7.92	7.72	7.41	7.52	7.62	7.81	7.4*	7.0*	7.72
1965 . . .	8.38	8.24	8.07	8.24	8.00	7.82	8.7*	7.5*	8.23

(a) Number of marriages per 1,000 of mean population.

* Based on too few events to warrant calculation of rates to two decimal places.

The crude marriage rates for Australia and the more populous countries of the world are shown for the latest available year in International Vital Statistics at the end of this chapter.

Marriage rates based on marriageable population

As the marriage rates in some international tabulations are based on the unmarried population aged 15 years and over, the corresponding rates have been calculated for Australia for the nine census periods to 1960-62. The period in each case comprises the census year with the year immediately preceding and the year immediately following, and the figures are as follows.

PERSONS MARRYING PER 1,000 OF UNMARRIED POPULATION: AUSTRALIA 1880-82 TO 1960-62

Period	Rate(a)	Period	Rate(a)
1880-82 .	48.63	1932-34 .	42.88
1890-92 .	44.04	1946-48 .	71.24
1900-02 .	42.14	1953-55 .	65.32
1910-12 .	50.12	1960-62 .	62.27
1920-22 .	55.97		

(a) Average annual number of persons who married per 1,000 unmarried persons, including widowed and divorced, aged 15 years and over.

Age and marital status at marriage

Particulars of age at marriage in age groups, and previous marital status, of bridegrooms and brides in 1964 are given hereunder. There were 10,775 males under 21 years of age married during 1964, while the corresponding number of females was 35,496. At the other extreme there were 1,054 bridegrooms and 505 brides in the age group 65 years and over.

AGE AND MARITAL STATUS OF BRIDEGROOMS AND BRIDES AUSTRALIA, 1964

Age at marriage (years)	Bridegrooms				Brides			
	Bachelors	Widowers	Divorced	Total	Spinsters	Widows	Divorced	Total
Under 20 .	5,468	..	..	5,468	24,365	5	7	24,377
20-24 .	40,670	20	65	40,755	40,863	76	317	41,256
25-29 .	20,729	65	447	21,241	7,874	180	852	8,906
30-34 .	6,302	122	815	7,239	2,190	219	970	3,379
35-39 .	2,623	176	957	3,756	1,016	296	984	2,296
40-44 .	1,109	278	819	2,206	561	415	835	1,811
45-49 .	528	296	638	1,462	289	473	516	1,278
50-54 .	286	410	509	1,205	233	465	358	1,056
55-59 .	183	427	343	953	133	368	164	665
60-64 .	98	429	147	674	79	319	86	484
65 and over .	89	815	150	1,054	67	398	40	505
Total .	78,085	3,038	4,890	86,013	77,670	3,214	5,129	86,013

In the following table the proportional distribution of bridegrooms and brides according to previous marital status is shown in five year-periods from 1936-40 to 1956-60 and for each of the years 1960 to 1964.

**MARITAL STATUS OF BRIDEGROOMS AND BRIDES: PROPORTIONAL
DISTRIBUTION, AUSTRALIA, 1936 TO 1964**

(Per cent)

Period	Bridegrooms				Brides			
	Bach- elors	Wid- owers	Divorced	Total	Spinsters	Widows	Divorced	Total
1936-40 . .	92.59	4.82	2.59	100.00	93.94	3.38	2.68	100.00
1941-45 . .	91.44	4.77	3.79	100.00	92.11	3.93	3.96	100.00
1946-50 . .	88.82	4.74	6.44	100.00	88.71	4.74	6.55	100.00
1951-55 . .	88.77	4.63	6.60	100.00	88.04	4.81	7.15	100.00
1956-60 . .	89.86	4.18	5.96	100.00	88.80	4.47	6.73	100.00
1960 . .	90.04	4.00	5.96	100.00	88.93	4.43	6.64	100.00
1961 . .	90.13	3.95	5.92	100.00	89.47	4.30	6.23	100.00
1962 . .	90.18	3.87	5.95	100.00	89.58	4.04	6.38	100.00
1963 . .	90.53	3.77	5.70	100.00	90.01	3.85	6.14	100.00
1964 . .	90.78	3.53	5.69	100.00	90.30	3.74	5.96	100.00

The relative ages of bridegrooms and brides in 1964 are shown below in age groups of five years.

RELATIVE AGES OF BRIDEGROOMS AND BRIDES: AUSTRALIA, 1964

Age of bridegroom (years)	Total bride- grooms	Age of bride (years)							
		Under 15	15-19	20-24	25-29	30-34	35-39	40-44	45 and over
Under 20 . .	5,468	2	4,644	786	29	3	3	..	1
20-24 . .	40,755	2	15,495	23,559	1,526	124	30	10	9
25-29 . .	21,241	..	3,516	13,067	3,829	623	143	43	20
30-34 . .	7,239	..	567	2,837	2,176	1,049	417	128	65
35-39 . .	3,756	..	108	747	910	846	667	326	152
40-44 . .	2,206	..	26	168	311	426	484	464	327
45-49 . .	1,462	..	10	57	76	189	282	366	482
50-54 . .	1,205	..	6	16	24	65	161	261	672
55-59 . .	953	..	..	14	14	35	74	139	677
60-64 . .	674	..	1	3	9	14	20	47	580
65 and over .	1,054	..	..	2	2	5	15	27	1,003
Total brides	86,013	4	24,373	41,256	8,906	3,379	2,296	1,811	3,988

The average age at marriage of brides and bridegrooms has declined during recent years. The average ages, in years, of brides for each of the five years to 1964 were: 1960, 24.84; 1961, 24.73; 1962, 24.68; 1963, 24.42; and 1964, 24.31. The average ages, in years, of bridegrooms were: 1960, 28.15; 1961, 28.07; 1962, 28.03; 1963, 27.76; and 1964, 27.58. The difference in the average age at marriage between brides and bridegrooms is generally just over three years, the difference in 1964 being 3.27 years.

Previous marital status

The following table shows the relative marital status of bridegrooms and brides in 1964.

**MARITAL STATUS OF BRIDEGROOMS AND BRIDES
AUSTRALIA, 1964**

Marital status of bridegrooms	Total bridegrooms	Marital status of brides		
		Spinsters	Widows	Divorced
Bachelors	78,085	74,231	1,142	2,712
Widowers	3,038	941	1,399	698
Divorced	4,890	2,498	673	1,719
Total brides ..	86,013	77,670	3,214	5,129

Countries of birth of persons marrying

The following table shows the relative countries of birth of bridegrooms and brides married in 1964.

**RELATIVE COUNTRIES OF BIRTH OF BRIDEGROOMS AND BRIDES
AUSTRALIA, 1964**

Country of birth of bridegroom	Country of birth of bride											Total bridegrooms
	Australia	New Zealand	United Kingdom and Ireland	Germany	Greece	Italy	Netherlands	Poland	Yugoslavia	Other European	Other and unspecified	
Australia ..	58,484	241	3,164	466	49	125	481	42	48	398	463	63,961
New Zealand ..	473	48	44	..	..	3	3	..	..	5	11	587
United Kingdom and Ireland ..	4,115	50	1,286	75	6	8	62	18	5	79	125	5,829
Germany ..	652	11	114	351	4	18	33	22	12	92	27	1,336
Greece ..	168	1	6	8	3,422	4	4	2	..	19	56	3,690
Italy ..	751	5	78	53	18	2,318	25	6	22	51	54	3,381
Netherlands ..	749	6	89	35	2	2	340	2	1	27	26	1,279
Poland ..	118	1	20	51	8	8	5	172	5	32	15	435
Yugoslavia ..	300	5	50	79	56	75	25	19	431	59	14	1,113
Other European	971	17	169	144	29	33	53	50	37	930	87	2,520
Other and unspecified ..	979	12	125	39	89	29	31	5	3	60	510	1,882
Total brides	67,760	397	5,145	1,301	3,683	2,623	1,062	338	564	1,752	1,388	86,013

Occupation of bridegrooms

The distribution of the 86,013 bridegrooms for 1964 amongst classes of occupations was as follows: craftsmen, 28,919; administrative and clerical workers, 11,111; labourers, 10,480; rural and mining workers, 8,250; professional and technical workers, 8,542; workers in transport and communication, 6,268; service, sport, and other workers, 5,667; sales workers, 5,360; persons not in the work force, 1,416.

Celebration of marriages

Under the provisions of the *Marriage Act* 1961 marriages may be celebrated either by ministers of religion who are registered for that purpose with the Registrar of Ministers of Religion in each State or Territory, or by certain civil officers, in most cases district registrars. Most of the marriages are celebrated by ministers of religion. The registered ministers in 1964 belonged to more than fifty different denominations, some of which, however, have only very few adherents. The categories 'Ministers of Other Recognized Denominations' and 'Other Ministers' combine ministers of some of these denominations. The figures for 1964 are shown in the following table.

MARRIAGES IN EACH DENOMINATION: STATES AND TERRITORIES, 1964

Category of celebrant	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia	
									No.	Proportion of total
Ministers of religion—										
Recognized denominations—										
Church of England . . .	10,202	5,301	3,233	1,606	1,900	1,108	41	147	23,538	27.37
Roman Catholic . . .	9,102	6,943	3,142	1,612	1,536	605	59	183	23,182	26.95
Methodist . . .	2,768	2,713	1,632	1,844	688	377	27	24	10,073	11.71
Presbyterian . . .	3,031	3,560	1,819	326	354	138	39	60	9,327	10.84
Orthodox . . .	1,504	1,405	111	208	79	26	19	17	3,369	3.92
Baptist . . .	542	363	196	191	90	75	4	11	1,472	1.71
Lutheran . . .	213	261	356	437	24	4	1	12	1,308	1.52
Congregational . . .	226	305	86	278	122	31	3	..	1,051	1.22
Churches of Christ . . .	127	422	68	231	126	25	..	10	1,009	1.17
Salvation Army . . .	138	116	78	56	28	21	2	..	439	0.51
Jewry . . .	127	151	3	6	10	..	..	..	297	0.35
Seventh-day Adventist . . .	107	57	47	19	28	6	..	..	264	0.31
Jehovah's Witnesses . . .	56	33	31	7	17	3	..	1	148	0.17
Christian Brethren . . .	40	21	23	14	7	20	..	..	125	0.15
Assemblies of God . . .	21	18	48	13	5	1	..	..	106	0.12
Other recognized denominations . . .	128	135	78	41	126	17	2	..	527	0.61
Other ministers . . .	14	331	19	8	11	..	..	..	383	0.45
Total, ministers¹ . . .	28,346	22,135	10,970	6,897	5,151	2,457	197	465	76,618	89.08
Civil officers . . .	4,287	2,034	782	868	872	412	36	104	9,395	10.92
Grand total . . .	32,633	24,169	11,752	7,765	6,023	2,869	233	569	86,013	100.00
Proportion of total (per cent)—										
Ministers of religion . . .	86.86	91.58	93.35	88.82	85.52	85.64	84.55	81.72	89.08	..
Civil officers . . .	13.14	8.42	6.65	11.18	14.48	14.36	15.45	18.28	10.92	..

Divorce

The number of dissolutions of marriage, nullities of marriage and judicial separations was 7,967 in 1964 and 8,534 in 1965. Further information may be found in the chapter Public Justice.

Fertility and reproduction

Natural increase has been a significant element of increase in the population of Australia for many years. The level of natural increase depends on the excess of births over deaths, and the relation between fertility and mortality determines the rate of reproduction or replacement of the population.

Number of live births and confinements

There are various methods of measuring the fertility of the population by relating the number of births to the numbers of the population. In each the basic data are, of course, the numbers of live births. The number of live births registered in Australia during 1964 is shown in the following table. The table shows also the number of confinements resulting in one or more live births. The figures exclude cases where the births were of still-born children only.

LIVE BIRTHS AND CONFINEMENTS: STATES AND TERRITORIES, 1964

Particulars	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
LIVE BIRTHS									
Single births	78,882	63,556	34,206	20,483	16,372	8,074	895	1,910	224,378
Twins	1,606	1,422	754	377	313	177	16	42	4,707
Triplets	30	12	12	6	..	1	..	3	64
Quadruplets	..	..	..	..	..	..	..	..	..
Males	41,414	33,511	17,990	10,849	8,570	4,218	476	1,034	118,062
Females	39,104	31,479	16,982	10,017	8,115	4,034	435	921	111,087
Total	80,518	64,990	34,972	20,866	16,685	8,252	911	1,955	229,149

STILLBIRTHS ASSOCIATED WITH MULTIPLE BIRTHS INCLUDED ABOVE

Twins	42	16	12	1	5	3	..	..	79
Triplets	..	..	..	..	..	2	..	..	2

CONFINEMENTS RESULTING IN BIRTHS SHOWN ABOVE

Nuptial	74,349	60,908	31,732	19,446	15,232	7,665	802	1,889	212,023
Ex-nuptial	5,367	3,371	2,861	1,228	1,299	500	101	43	14,770
Total	79,716	64,279	34,593	20,674	16,531	8,165	903	1,932	226,793

Note. Owing to the registration procedure adopted in some States, it is possible that in some cases where one child only of a multiple pregnancy was live-born, the confinement has been treated as a single birth. However, the numbers of multiple births are not significantly affected. See also page 241.

The average annual number of live births in each State and Territory for each five-year period from 1941 to 1965 and the total number of live births for each year from 1961 to 1965 are given in the following table. Corresponding figures for each five-year period from 1861 to 1950 were published in Year Book No. 39, page 583.

LIVE BIRTHS: STATES AND TERRITORIES, 1941 TO 1965

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Annual average—									
1941-45	56,583	38,002	23,431	12,546	10,409	5,418	113	384	146,886
1946-50	68,856	47,372	28,003	16,270	13,130	7,064	289	734	181,718
1951-55	73,737	53,770	30,983	18,045	15,724	7,774	468	922	201,423
1956-60	79,613	61,279	34,171	19,977	16,922	8,517	694	1,286	222,459
1961-65	82,896	65,193	35,357	21,377	16,861	8,439	897	1,932	232,952
Annual total—									
1961	86,392	65,886	36,637	22,399	17,078	8,982	878	1,734	239,986
1962	85,439	65,890	35,690	21,361	17,064	8,894	924	1,819	237,081
1963	84,065	65,649	35,934	21,367	17,290	8,530	859	1,995	235,689
1964	80,518	64,990	34,972	20,866	16,685	8,252	911	1,955	229,149
1965	78,069	63,550	33,551	20,891	16,186	7,535	914	2,158	222,854

A graph showing the number of births in each year from 1870 to 1965 will be found on plate 22.

Crude birth rates

The oldest and most popular method of measuring fertility is to relate the number of births to the total population, thus obtaining the crude birth rate. The crude birth rate measures the rate per thousand persons (irrespective of age or sex) at which the population has added to its numbers by way of births during a given period. Other methods of measuring fertility are shown on pages 237-9. Crude birth rates for each five-year period from 1941 to 1965 and for each year from 1961 to 1965 for each State and Territory are set out below.

CRUDE BIRTH RATES(a): STATES AND TERRITORIES, 1941 TO 1965

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Average annual rates—									
1941-45 .	19.79	19.27	22.28	20.43	21.72	22.23	11.4*	26.8*	20.28
1946-50 .	22.60	22.51	24.69	24.41	25.24	26.71	23.8*	37.9*	23.39
1951-55 .	21.78	22.42	24.11	23.25	25.37	25.58	29.4*	32.22	22.86
1956-60 .	21.55	22.52	23.80	22.27	24.20	25.45	31.49	30.10	22.59
1961-65 .	20.45	21.29	22.64	21.15	21.83	23.26	30.48	26.30	21.32
Annual rates—									
1961 .	22.07	22.51	24.17	23.10	23.16	25.40	33.5*	29.5*	22.85
1962 .	21.46	22.04	23.19	21.59	22.59	24.75	34.3*	27.7*	22.14
1963 .	20.75	21.49	23.00	21.18	22.36	23.42	30.0*	27.2*	21.59
1964 .	19.54	20.77	22.06	20.22	21.11	22.46	29.0*	24.2*	20.58
1965 .	18.61	19.81	20.88	19.83	20.08	20.40	26.9*	24.3*	19.61

(a) Number of births per 1,000 of mean population.

* Based on too few events to warrant calculation of rates to two decimal places.

The birth rates in the table above are based on *live births registered in the respective States and Territories*. Some confinements, however, take place in States other than the State in which the mother usually resides, particularly in areas near State borders. The variations thus caused in the birth rates for the States and Territories by referring the birth registrations to the mother's usual residence are shown by the following corrected rates for 1964—New South Wales 19.59; Victoria, 20.76; Queensland, 21.96; South Australia, 20.12; Western Australia, 21.14; Tasmania, 22.51; Northern Territory, 30.20 and Australian Capital Territory, 24.18. See Year Book No. 47 (p. 339) for the effect of the variations in the availability of hospital facilities on the birth rate in the Australian Capital Territory and in the neighbouring town of Queanbeyan in New South Wales.

A graph showing the birth rate for each year from 1870 to 1965 will be found on plate 23. The crude birth rates of Australia and the more populous countries of the world for the latest available year are shown in International Vital Statistics at the end of this chapter.

Fertility rates

The principal demographic factors affecting the level of crude birth rates are the proportion of women of child-bearing age in the population and the proportion of such women who are married. These factors may vary considerably at different periods and for different countries, and a population with a higher proportion of married women of child-bearing age will have a much higher crude birth rate than one with a low proportion, although the fertilities of the two populations may be identical. In order to compare fertilities births are sometimes related to the number of women of child-bearing age or, alternatively, nuptial births are related to the number of married women of child-bearing age. Thus births are related to potential mothers, giving the fertility rate.

The following table sets out for certain periods, commencing with 1880-82, the number of births per thousand of mean population, the number of births per thousand women of child-bearing age and the number of nuptial births per thousand married women of child-bearing age. For purposes of this table the child-bearing age has been taken to be fifteen to forty-four years inclusive, but births to mothers who were stated to be under fifteen or over forty-four years have been included in the compilations.

CRUDE BIRTH RATES AND FERTILITY RATES: AUSTRALIA, 1880-82 TO 1960-62

Period	Average annual rates			Index nos. (Base: 1880-82 = 100)		
	Crude birth rate(a)	Fertility rates		Crude birth rate(a)	Fertility rates	
		Births per 1,000 women aged 15-44 years	Nuptial births per 1,000 married women aged 15-44 years		Births per 1,000 women aged 15-44 years	Nuptial births per 1,000 married women aged 15-44 years
1880-82 .	35.3	170	321	100	100	100
1890-92 .	34.5	159	332	98	94	103
1900-02 .	27.2	117	235	77	69	73
1910-12 .	27.2	117	236	77	69	74
1920-22 .	25.0	107	197	71	63	61
1932-34 .	16.7	71	131	47	42	41
1946-48 .	23.6	104	160	67	61	50
1953-55 .	22.7	109	149	64	64	46
1960-62 .	22.5	112	154	64	66	48

(a) Number of births per 1,000 of mean population.

The table above shows how increasing proportions both of women of child-bearing age and of married women of child-bearing age inflate the crude birth rate. Thus, while the nuptial birth rate for married women increased by only 22 per cent over the period 1932-34 to 1946-48, the crude birth rate rose by 41 per cent owing principally to the greatly increased number of marriages during that period.

Age-specific birth rates

So long as customary ages at marriage do not change drastically the main demographic factor affecting the number of births is the age composition of the potential mothers in the population. Within the child-bearing group the fertility of women of different ages varies considerably and a clearer view of the fertility of the population can be obtained from an examination of what are known as its age-specific birth rates, that is the number of births to women of specified ages per thousand women of those particular ages.

Age-specific birth rates are more commonly expressed in age groups than in single ages. In the following table such rates are shown in five-year age groups for Australia for the period 1941 to 1964. A graph showing the age-specific birth rates for each year during the period 1941 to 1964 appears on plate 24 of this issue.

AGE-SPECIFIC BIRTH RATES:(a) AUSTRALIA, 1941 TO 1964

Age group (years)	1941	1946	1951	1956	1961	1962	1963	1964
15-19 . .	24.30	26.30	38.33	43.09	47.37	44.77	46.04	46.74
20-24 . .	121.26	151.86	177.86	210.10	225.21	215.33	207.03	189.92
25-29 . .	145.07	184.59	185.23	203.15	220.16	215.83	210.86	197.88
30-34 . .	103.24	133.62	122.31	123.58	131.31	127.58	123.21	118.44
35-39 . .	58.11	76.66	65.92	64.22	63.22	61.27	59.81	58.39
40-44 . .	19.30	24.47	20.51	19.72	19.16	18.32	18.41	16.50
45-49 . .	1.67	2.06	1.61	1.57	1.42	1.18	1.11	1.16

(a) Number of births per 1,000 women in each age group.

Gross and net reproduction rates for females

A single measure of reproduction, known as the gross reproduction rate, is obtained by adding together the specific fertility rates for each age in the child-bearing group. This measure indicates the number of female children who would be born on an average to women living right through

the child-bearing period, if the conditions on which the rate is based continue. The rate is unaffected by the age composition of the potential mothers, and consequently it shows more clearly than the crude birth rate the reproductive propensity of the population. It is, however, an imperfect measure of reproduction because it does not take into account the females who fail to live from birth to the end of the reproductive period. A more accurate measure of this nature is obtained by multiplying the specific fertility rates by the number of females in the corresponding age group of the stationary or life table population and summing the products. Allowance is thus made for the effect of mortality, and the result is known as the net reproduction rate. The net reproduction rate indicates the average number of female children who would be born to women during their lifetime if they were subject at each age to the fertility and mortality rates on which the calculation is based. A constant net reproduction rate of unity indicates that the population will ultimately become stationary. If it continues greater than unity, the population will ultimately increase; if less than unity, it will ultimately decrease. The following table should be read in the light of the comment which follows it and of the index of marriage fertility, page 239.

GROSS AND NET REPRODUCTION RATES: AUSTRALIA, 1881 TO 1964

Year	Gross reproduction rate	Net reproduction rate	Year	Gross reproduction rate	Net reproduction rate
1881(a)	2.65	(b) 1.88	1947	1.493	(g) 1.416
1891(a)	2.30	(b) 1.73	1954	1.558	(h) 1.497
1901(a)	1.74	(c) 1.39	1960	1.677	(i) 1.623
1911	1.705	(d) 1.421	1961	1.724	(i) 1.668
1921	1.511	(e) 1.313	1962	1.659	(i) 1.605
1931	1.141	(f) 1.039	1963	1.620	(i) 1.567
1941	1.154	(f) 1.053	1964	1.525	(i) 1.475

(a) Approximate only. (b) 1881-1890 mortality experience used. (c) 1891-1900 mortality experience used. (d) 1901-1910 mortality experience used. (e) 1920-1922 mortality experience used. (f) 1932-1934 mortality experience used. (g) 1946-1948 mortality experience used. (h) 1953-1955 mortality experience used. (i) 1960-62 mortality experience used.

It is not strictly correct to assume, as in the calculations of the rates above, that a particular age-specific fertility rate can be applied to a hypothetical group of women reaching that age, without taking into account of previous fertility and marriage experience. Reproduction rates are therefore unreliable when birth and marriage rates have been changing. The indexes of marriage fertility shown on the next page are also of doubtful reliability in similar circumstances.

In the following table a comparison is given of the gross and net reproduction rates recorded for various countries in the period 1954 to 1964. These represent the latest available international comparisons.

GROSS AND NET REPRODUCTION RATES: VARIOUS COUNTRIES

Country	Period	Reproduction rate		Country	Period	Reproduction rate	
		Gross	Net			Gross	Net
Thailand	1954	(d) 2.06	1.70	France	1962	1.36	1.31
New Zealand(a)	1962	1.97	1.91	Yugoslavia	1961	1.33	1.18
Ireland, Republic of	1962	1.90	(h) 1.45	Finland	1962	1.29	(f) 1.30
Canada	1963	1.80	(e) 1.77	Belgium	1961	1.29	1.24
United States of America(b)	1962	1.63	1.58	Denmark	1962	1.24	(g) 1.20
Netherlands	1963	1.56	(e) 1.50	Czechoslovakia	1962	1.14	1.09
Australia(c)	1964	1.53	1.48	Germany—			
Scotland	1963	1.47	1.42	Federal Rep.	1962	1.20	(g) 1.11
Portugal	1955-58	1.43	1.23	Democratic Rep.	1955	1.13	1.06
Norway	1962	1.40	(f) 1.34	Switzerland	1955-59	1.13	1.09
England and Wales	1962	1.38	1.34	Sweden	1961	1.07	1.05
Austria	1963	1.38	(e) 1.28	Japan	1962	0.95	0.90
				Hungary	1963	0.88	(e) 0.81

(a) Excludes Maoris. (b) White population only. (c) Excludes full-blood Aborigines. (d) 1950-54. (e) 1962. (f) 1961. (g) 1960. (h) 1955.

In comparing the reproduction rates of the countries shown allowance should be made for any differences in years, as the rates for any one country from year to year are affected by variations in the incidence of marriage, as well as the stationary or life table population used.

Fertility of marriages

More satisfactory estimates of the fertility of marriages may be made by relating nuptial confinements in each year to the marriages from which they could have resulted. Confinements of women of a certain number of years duration of marriage are related to the number of marriages taking place that number of years previously. The table below sets out this index of current fertility per marriage in respect of confinements in the individual years shown.

FERTILITY OF MARRIAGES: AUSTRALIA, 1950 TO 1964

Year	Nuptial confinements per marriage	Year	Nuptial confinements per marriage	Year	Nuptial confinements per marriage
1950 .	2.56	1955 .	2.71	1960 .	2.96
1951 .	2.55	1956 .	2.76	1961 .	3.05
1952 .	2.63	1957 .	2.87	1962 .	2.98
1953 .	2.66	1958 .	2.88	1963 .	2.92
1954 .	2.66	1959 .	2.93	1964 .	2.78

See text following first table on page 238.

The figure for a particular year gives the estimated number of children which a marriage would produce according to the fertility conditions of that year. The figures for 1949 and subsequent years present a somewhat inflated index, as many of the births which have been used to calculate the index relate to marriages of immigrants which took place overseas and consequently are not included in Australian marriage records. Partial investigation suggests that this factor probably overstated the index by very little in 1949, but that the overstatement at present is about 8 per cent.

Masculinity of live births

The masculinity of live births, i.e., the number of males born for every 100 female births, has remained fairly stable for Australia at about 105. But when the number of births for which masculinity is being calculated is small (for example, totals for smaller States) considerable variation is shown. The averages for the ten years 1951-60 were as follows: New South Wales, 105.38; Victoria, 105.50; Queensland, 105.80; South Australia, 104.89; Western Australia, 105.25; Tasmania, 104.96; Northern Territory, 107.16; Australian Capital Territory, 108.77; Australia, 105.43. The following table shows the figures for Australia for each ten-year period from 1901 to 1960 and for each of the years 1963 to 1965.

MASCULINITY(a) OF LIVE BIRTHS REGISTERED: AUSTRALIA, 1901 TO 1965

Particulars	1901-10	1911-20	1921-30	1931-40	1941-50	1951-60	1963	1964	1965
Total births . . .	105.22	105.27	105.55	105.12	105.38	105.43	105.75	106.28	105.61
Ex-nuptial births . .	104.08	105.25	105.16	105.36	105.34	103.99	106.76	106.00	

(a) Number of males born for every 100 female births.

Ex-nuptial live births

The variations in the proportions of ex-nuptial live births as between the individual States and Territories for 1964 and for Australia at intervals from 1901 to 1964 are shown in the following table.

EX-NUPTIAL LIVE BIRTHS
NUMBER AND PROPORTION, STATES AND TERRITORIES, 1964

Particulars	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Number . .	5,427	3,402	2,898	1,239	1,311	502	103	43	14,925
Proportion of total births %	6.74	5.23	8.29	5.94	7.86	6.08	11.31	2.20	6.51

EX-NUPTIAL LIVE BIRTHS: NUMBER AND PROPORTION
AUSTRALIA, 1901 TO 1964

Particulars	Annual average						1960	1961	1962	1963	1964
	1901-10	1911-20	1921-30	1931-40	1941-50	1951-60					
Number . .	6,498	6,836	6,238	5,133	6,780	9,013	10,987	12,269	12,813	13,454	14,925
Proportion of total births % .	6.05	5.22	4.66	4.40	4.13	4.25	4.77	5.11	5.40	5.71	6.51

A further measure of ex-nuptiality is obtained by calculating the number of ex-nuptial births per thousand of the single, widowed and divorced female population aged from 15 to 44 years. On this basis, the number of ex-nuptial births per 1,000 unmarried women of ages 15 to 44 is as follows: 1880-82, 14.49; 1890-92, 15.93; 1900-02, 13.30; 1910-12, 12.53; 1920-22, 10.50; 1932-34, 6.91; 1946-48, 11.45; 1953-55, 14.45; and 1960-62, 18.49. Ex-nuptial births to married women, which are not recorded separately, are included in these figures and it is not possible to determine to what extent they influence the trend shown. The following table shows the relative ratios of ex-nuptial and nuptial births to the total population for periods from 1901.

CRUDE EX-NUPTIAL, NUPTIAL, AND TOTAL BIRTH RATES(a)
AUSTRALIA, 1901 TO 1964

Birth rate	Annual average						1962	1963	1964
	1901-10	1911-20	1921-30	1931-40	1941-50	1951-60			
Ex-nuptial. .	1.60	1.39	1.04	0.76	0.90	0.97	1.19	1.23	1.34
Nuptial . .	24.91	25.18	21.40	16.47	20.99	21.75	20.95	20.36	19.24
Total . .	26.51	26.57	22.44	17.23	21.89	22.72	22.14	21.59	20.58

(a) Number of births per 1,000 of mean population.

Legitimations

Under the provisions of the Commonwealth *Marriage Act* 1961, which came into operation on 1 September 1963, a child whose parents were not married to each other at the time of its birth becomes legitimized on the subsequent marriage of its parents. The legitimization takes place whether or not there was a legal impediment to the marriage of the parents at the time of the child's birth and whether or not the child was still living at the time of the marriage, or in the case of a child born before 1 September 1963, at that date. Prior to the introduction of this

Act, legitimations took place under Acts passed in the several States to legitimize children born before the marriage of their parents, provided that no legal impediment to the marriage existed at the time of birth. On registration in accordance with the provisions of the Legitimation Acts, any child who came within the scope of their purposes, born before or after the passing thereof, was deemed to be legitimate from birth by the post-natal union of its parents, and entitled to the status of offspring born in wedlock. The number of children legitimized in Australia during 1964 was 3,765.

Multiple births

Because the current Australian birth statistics are based only on those confinements which resulted in a live-born child, the number of confinements for multiple births for Australia is understated—firstly, because in cases where all children of a multiple birth are still-born the confinement is excluded, and secondly, because some cases of multiple births in which only one child was live-born are registered as single births.

Multiple births recorded on this basis during 1964 comprised 2,393 cases of twins and 22 cases of triplets, the resultant numbers of live-born and still-born children being respectively 4,707 and 79 for twins, 64 and 2 for triplets. This represents an average of 10.55 recorded cases of twins and 0.10 recorded cases of triplets per 1,000 confinements or, alternatively, mothers of twins represented 1 in every 95 mothers and mothers of triplets 1 in every 10,309. Total cases of multiple births represented 10.65 per 1,000 confinements or 1 in every 94 mothers. The proportion of mothers of multiple births to total mothers does not vary greatly from year to year.

Births—ages of parents

The relative ages of the parents of children whose births were registered in 1964 have been tabulated separately for male and female births, multiple births being distinguished from single births. For total births and for multiple births, the relative ages of parents are shown in *Demography*, Bulletin No. 82. In the following table the relative ages of parents are shown in five-year groups.

CONFINEMENTS, BY RELATIVE AGES OF PARENTS: AUSTRALIA, 1964

Age of father (years) and type of birth		Total	Age of mother (years)								Not stated
			Under 15	15-19	20-24	25-29	30-34	35-39	40-44	45 and over	
Under 20	.	3,078	3	2,591	472	11	1	..	..	..	..
20-24	.	38,444	..	11,088	24,880	2,328	122	21	5	..	..
25-29	.	65,758	1	2,558	31,440	28,905	2,567	268	18	1	..
30-34	.	52,083	..	461	7,984	24,516	16,798	2,159	161	4	..
35-39	.	32,534	..	103	1,665	6,945	13,611	9,337	859	14	..
40-44	.	13,889	..	24	338	1,300	3,567	6,088	2,517	55	..
45-49	.	4,395	..	4	74	305	750	1,665	1,442	155	..
50-54	.	1,333	..	3	32	104	231	407	468	88	..
55-59	.	367	..	..	13	18	63	124	131	18	..
60-64	.	103	..	..	3	8	20	36	33	3	..
65 and over(a)	.	39	..	..	5	4	5	12	11	2	..
Mothers of nuptial children	Single	209,764	4	16,736	66,363	63,756	37,219	19,770	5,582	334	..
	Twins	2,237	..	96	536	682	511	344	62	6	..
	Triplets	22	..	..	7	6	5	3	1	..	..
	Total	212,023	4	16,832	66,906	64,444	37,735	20,117	5,645	340	..
Mothers of ex-nuptial children	Single	14,614	90	5,176	4,183	2,203	1,484	1,081	364	29	4
	Twins	156	..	32	34	27	39	18	6	..	..
	Triplets	..	..	..	..	..	..	..	..	..	..
	Total	14,770	90	5,208	4,217	2,230	1,523	1,099	370	29	4
Total mothers	Single	224,378	94	21,912	70,546	65,959	38,703	20,851	5,946	363	4
	Twins	2,393	..	128	570	709	550	362	68	6	..
	Triplets	22	..	..	7	6	5	3	1	..	..
	Total	226,793	94	22,040	71,123	66,674	39,258	21,216	6,015	369	4

(a) Includes two fathers age 'Not stated'.

Births—countries of birth of parents

The following table shows the countries of birth of parents of children whose births from nuptial confinements were registered during 1964.

NUPTIAL CONFINEMENTS, BY RELATIVE COUNTRIES OF BIRTH OF PARENTS AUSTRALIA, 1964

Country of birth of father	Country of birth of mother											Total fathers
	Australia	New Zealand	United Kingdom and Ireland	Germany	Greece	Italy	Netherlands	Poland	Yugoslavia	Other European	Other and unspecified	
Australia	150,739	547	5,374	506	110	236	717	99	72	591	980	159,971
New Zealand	575	155	47	3	..	..	4	2	..	6	18	810
United Kingdom and Ireland	6,987	77	6,320	98	8	25	83	9	8	144	245	14,004
Germany	873	9	118	1,181	10	18	58	30	21	111	49	2,478
Greece	335	3	18	14	4,764	13	6	7	16	33	74	5,283
Italy	1,772	12	146	66	40	9,114	59	14	72	123	110	11,528
Netherlands	1,346	10	154	66	3	7	2,148	3	3	55	103	3,898
Poland	346	5	64	118	12	6	19	486	19	93	32	1,200
Yugoslavia	468	3	59	119	76	109	35	33	1,359	93	32	2,386
Other European	1,812	27	250	285	98	66	88	74	98	3,208	129	6,135
Other and unspecified	1,609	29	278	44	154	44	103	17	11	95	1,946	4,330
Total mothers	166,862	877	12,828	2,500	5,275	9,638	3,320	774	1,679	4,552	3,718	212,023

Births—occupation of fathers

In the 212,023 cases where nuptial confinements resulted in one or more live births, the classes of occupations of the fathers were distributed as follows: craftsmen, 67,930; rural and mining workers, 27,225; administrative and clerical workers, 28,194; labourers, 22,491; workers in transport and communication, 18,949; professional and technical workers, 19,523; sales workers, 13,730; service, sport and other workers, 13,335; persons not in the work force, 646.

Births—age, duration of marriage and issue of mothers

The total number of nuptial confinements resulting in live births in 1964 was 212,023, comprising 209,764 single births, 2,237 cases of twins and 22 cases of triplets. The following tables relating to previous issue exclude the issue of former marriages and still-born children. On the other hand, they include in some States children by the same father who were born to the mother prior to the marriage. Children born at the present confinement are included in the total issue shown.

The following table shows that in 1964 the duration of marriage of mothers of nuptial children ranged from less than one year to over 25 years and that the average family increased fairly regularly with the duration of marriage. The average issue of married mothers who bore children in 1964 was 2.56, compared with 2.60 in 1963, 2.61 in 1962, 2.60 in 1961 and 2.59 in 1960.

NUPTIAL CONFINEMENTS, BY DURATION OF MARRIAGE AND ISSUE OF MOTHERS: AUSTRALIA, 1964

Duration of marriage	Total married mothers	Total issue	Average issue	Duration of marriage	Total married mothers	Total issue	Average issue
Under 1 year	30,758	31,443	1.02	15 years	2,727	13,741	5.04
1 year	24,242	31,393	1.30	16 "	2,278	12,027	5.28
2 years	24,140	41,893	1.74	17 "	1,835	10,063	5.48
3 "	22,136	46,012	2.08	18 "	1,334	7,645	5.73
4 "	18,497	44,715	2.42	19 "	905	5,452	6.02
5 "	15,381	41,830	2.72	20 "	668	4,196	6.28
6 "	13,075	39,034	2.99	21 "	510	3,346	6.56
7 "	11,182	36,365	3.25	22 "	360	2,355	6.54
8 "	9,488	33,345	3.51	23 "	228	1,600	7.02
9 "	7,943	29,902	3.76	24 "	125	956	7.65
10 "	6,460	25,811	4.00	25 years and over	147	1,156	7.86
11 "	5,410	22,756	4.21	Not stated	1	4	4.00
12 "	4,751	21,154	4.45				
13 "	4,080	18,999	4.66				
14 "	3,362	16,556	4.92				
				Total	212,023	543,749	2.56

The following table shows the average number of children born to mothers of different ages.

**NUPTIAL CONFINEMENTS: AVERAGE ISSUE OF MOTHERS
BY AGE, AUSTRALIA, 1911 TO 1964**

Period	Average issue of mothers aged—							
	Under 20 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45 years and over	All ages
1911-20 . . .	1.21	1.75	2.61	3.74	5.11	6.69	8.16	3.25
1921-30 . . .	1.20	1.71	2.46	3.48	4.80	6.27	7.74	3.04
1931-40 . . .	1.20	1.68	2.30	3.19	4.41	5.89	7.40	2.71
1941-50 . . .	1.17	1.56	2.15	2.85	3.67	4.79	6.19	2.37
1951-60 . . .	1.23	1.71	2.42	3.12	3.84	4.63	5.57	2.51
1964 . . .	1.23	1.76	2.54	3.42	4.13	4.88	5.63	2.56

A classification of mothers by age and previous issue is given for 1964 in the following table.

**NUPTIAL CONFINEMENTS, BY AGE OF MOTHER AND PREVIOUS ISSUE
AUSTRALIA, 1964**

Previous issue	Age of mother (years)							Total married mothers
	Under 20	20-24	25-29	30-34	35-39	40-44	45 and over	
0	13,452	32,670	15,032	4,835	2,054	519	24	68,586
1	2,977	22,404	20,400	7,593	2,741	575	23	56,713
2	374	8,696	16,239	9,532	3,913	819	38	39,611
3	31	2,408	7,854	7,345	3,917	919	50	22,524
4	2	594	3,121	4,162	2,961	844	56	11,740
5 . . . . .	..	105	1,152	2,092	1,858	634	33	5,874
6 . . . . .	..	28	435	1,125	1,161	478	29	3,256
7 . . . . .	..	1	150	594	675	297	26	1,743
8 . . . . .	..	..	46	272	400	190	25	933
9 . . . . .	..	..	13	106	205	138	15	477
10 and over . .	..	..	2	79	232	232	21	566
Total married mothers .	16,836	66,906	64,444	37,735	20,117	5,645	340	212,023

Multiple births—previous issue of mothers

Of married mothers of twins in 1964, 573 had no previous issue either living or deceased, 553 had one child previously, 467 had two previous issue, 280 three, 153 four, 92 five, 49 six, 33 seven, 22 eight, 7 nine, 2 ten, 3 eleven, 1 twelve, 1 thirteen, and 1 fifteen. Of the 22 cases of nuptial triplets registered during 1964, 6 mothers had no previous issue, 4 had one, 4 had two, 2 had three, 2 had four, 1 had five, 2 had six, and 1 had nine previous issue.

Nuptial first births

The following table shows the interval between marriage and first birth for periods since 1911. In cases of multiple births, the first live-born child only is enumerated.

NUPTIAL FIRST BIRTHS, BY DURATION OF MARRIAGE: AUSTRALIA, 1911 TO 1964

Duration of marriage	Annual average					1963	1964
	1911-20	1921-30	1931-40	1941-50	1951-60		

NUMBER OF NUPITAL FIRST BIRTHS

Under 8 months . . .	9,312	10,351	10,677	8,822	11,796	17,621	18,343
8 months . . .	1,562	1,530	1,417	2,104	2,144	2,205	2,007
9 " . . .	3,517	3,253	2,668	4,298	4,673	4,594	3,983
10 " . . .	2,877	2,907	2,202	3,447	3,947	3,749	3,301
11 " . . .	2,018	2,152	1,836	2,896	3,287	3,074	2,803
<i>Total under 1 year . . .</i>	<i>19,286</i>	<i>20,193</i>	<i>18,800</i>	<i>21,567</i>	<i>25,847</i>	<i>31,243</i>	<i>30,437</i>
1 year and under 2 years	8,563	10,133	10,595	17,762	18,463	17,751	17,547
2 years " " 3 "	2,626	3,369	4,319	8,028	7,937	7,852	8,201
3 " " " 4 "	1,230	1,743	2,214	4,361	4,373	4,313	4,429
4 " " " 5 "	700	941	1,205	2,569	2,632	2,582	2,623
5 " " " 10 "	980	1,446	1,766	3,936	4,262	4,343	4,342
10 " " " 15 "	168	240	289	501	721	817	794
15 years and over . . .	42	55	55	94	144	229	213
<i>Total . . .</i>	<i>33,595</i>	<i>38,120</i>	<i>39,243</i>	<i>58,818</i>	<i>64,379</i>	<i>69,130</i>	<i>68,586</i>

PROPORTION OF TOTAL NUPITAL FIRST BIRTHS

(Per cent)

Under 8 months . . .	27.72	27.15	27.21	15.00	18.32	25.49	26.74
8 months . . .	4.65	4.01	3.61	3.58	3.33	3.19	2.93
9 " . . .	10.47	8.53	6.80	7.31	7.26	6.64	5.81
10 " . . .	8.56	7.63	5.61	5.86	6.13	5.42	4.81
11 " . . .	6.01	5.65	4.68	4.92	5.11	4.45	4.09
<i>Total under 1 year . . .</i>	<i>57.41</i>	<i>52.97</i>	<i>47.91</i>	<i>36.67</i>	<i>40.15</i>	<i>45.19</i>	<i>44.38</i>
1 year and under 2 years	25.49	26.58	27.00	30.20	28.68	25.68	25.58
2 years " " 3 "	7.82	8.84	11.01	13.65	12.33	11.36	11.96
3 " " " 4 "	3.66	4.57	5.64	7.41	6.79	6.24	6.46
4 " " " 5 "	2.08	2.47	3.07	4.37	4.09	3.74	3.82
5 " " " 10 "	2.92	3.79	4.50	6.69	6.62	6.28	6.33
10 " " " 15 "	0.50	0.63	0.73	0.85	1.12	1.18	1.16
15 years and over . . .	0.12	0.15	0.14	0.16	0.22	0.33	0.31
<i>Total . . .</i>	<i>100.00</i>	<i>100.00</i>	<i>100.00</i>	<i>100.00</i>	<i>100.00</i>	<i>100.00</i>	<i>100.00</i>

In 1964 the masculinity of nuptial first births was 106.22 and of total births 106.28.

A summary showing grouped ages and grouped durations of marriage of mothers of nuptial first-born children is given in the following table.

NUPTIAL FIRST BIRTHS, BY AGE OF MOTHER AND DURATION OF MARRIAGE AUSTRALIA, 1964

AUSTRALIA, 1907.

Duration of marriage	Age of mother (years)								Total
	Under 20	20-24	25-29	30-34	35-39	40-44	45 and over	Not stated	
	NUMBER OF NUPTIAL FIRST BIRTHS								
Under 8 months	9,661	7,059	1,048	356	172	45	2	..	18,343
8 months	410	1,130	317	111	31	8	..	..	2,007
9 "	623	2,370	716	195	67	12	..	..	3,983
10 "	473	1,992	571	187	68	10	..	..	3,301
11 "	394	1,660	529	144	63	13	..	..	2,803
<i>Total under 1 year</i>	<i>11,561</i>	<i>14,211</i>	<i>3,181</i>	<i>993</i>	<i>401</i>	<i>88</i>	<i>2</i>	<i>..</i>	<i>30,437</i>
1 year and under 2 years	1,635	10,756	3,563	1,053	437	101	2	..	17,547
2 years " " 3 " "	218	4,698	2,453	535	225	66	6	..	8,201
3 " " " 4 " "	34	1,954	1,885	367	143	46	..	..	4,429
4 " " " 5 " "	4	731	1,439	313	113	22	1	..	2,623
5 " " " 10 " " . . . . .	..	320	2,446	1,129	368	75	4	..	4,342
10 " " " 15 " " . . . . .	..	..	65	430	243	53	3	..	794
15 years and over . . . . .	..	..	..	15	124	68	6	..	213
Total	13,452	32,670	15,032	4,835	2,054	519	24	..	68,586

The following table provides a comparison between the numbers of nuptial first births and subsequent births in periods since 1911 and shows also the proportion of first to total nuptial confinements.

NUPTIAL FIRST BIRTHS AND SUBSEQUENT BIRTHS AUSTRALIA, 1911 TO 1964

Period	Nuptial confinements			Proportion of first to total nuptial confinements (per cent)
	First births	Other births	Total	
Annual average—				
1911-20	33,595	88,997	122,592	27.40
1921-30	38,120	88,086	126,206	30.20
1931-40	39,243	71,136	110,379	35.55
1941-50	58,818	96,994	155,812	37.75
1951-60	64,379	136,264	200,643	32.09
Annual total—				
1960	66,890	150,073	216,963	30.83
1961	70,177	155,105	225,282	31.15
1962	68,310	153,547	221,857	30.79
1963	69,130	150,713	219,843	31.45
1964	68,586	143,437	212,023	32.35

Stillbirths

Interstate comparisons of the figures and rates in the following tables are affected by the differences in the definitions of stillbirths adopted by the various States, and only the trends in the rates for the States should be compared. For various reasons, the registration of stillbirths is not as complete as for live births and deaths; particulars for the Territories and the smaller States are more affected by this than are those for the larger States. Stillbirth registration is not compulsory in Tasmania. The figures shown represent those stillbirths voluntarily registered during the year.

STILLBIRTHS: STATES AND TERRITORIES, 1936 TO 1964

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Annual average—									
1936-40 . . .	1,409	854	(a)	(b) 274	234	144	(a)	5	(a)
1941-45 . . .	1,478	966	(c) 657	324	248	143	(a)	9	de 3,825
1946-50 . . .	1,405	949	626	368	274	161	(a)	12	(e) 3,795
1951-55 . . .	1,239	849	581	290	271	139	8	16	3,393
1956-60 . . .	1,253	839	558	274	235	109	6	19	3,293
Annual total—									
1960 . . .	1,261	850	551	280	226	106	13	22	3,309
1961 . . .	1,306	885	553	272	240	111	17	19	3,403
1962 . . .	1,099	775	520	278	203	102	9	20	3,006
1963 . . .	1,163	792	476	262	178	63	30	14	2,978
1964 . . .	1,003	771	402	252	170	69	13	15	2,695

(a) Not available. (b) Three years 1938-40. (c) Four years 1942-45. (d) Excludes Queensland for 1941. (e) Excludes Northern Territory.

The incidence of stillbirths in each State and Territory as measured by the rate per 1,000 of all births, both live and still, is as follows.

PROPORTION OF STILLBIRTHS(a): STATES AND TERRITORIES, 1936 TO 1964

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Average annual rate—									
1936-40 . . .	28.7	27.4	(b)	(c) 27.5	25.7	28.7	(b)	22.2	(b)
1941-45 . . .	25.5	24.8	d 26.8	25.2	23.3	25.7	(b)	22.9	ef 25.25
1946-50 . . .	20.0	19.6	21.9	22.1	20.5	22.3	(b)	16.3	f 20.46
1951-55 . . .	16.5	15.5	18.4	15.8	17.0	17.5	17.2	17.1	16.57
1956-60 . . .	15.5	13.5	16.1	13.5	13.7	12.6	8.6	14.3	14.59
Annual rate—									
1960 . . .	15.1	13.1	15.4	13.2	13.2	11.8	(g)	13.7	14.16
1961 . . .	14.9	13.3	14.9	12.0	13.9	12.2	(g)	(g)	13.98
1962 . . .	12.7	11.6	14.4	12.8	11.8	11.3	(g)	10.9	12.52
1963 . . .	13.6	11.9	13.1	12.1	10.2	7.3	33.7	(g)	12.48
1964 . . .	12.3	11.7	11.4	11.9	10.1	8.3	(g)	(g)	11.62

(a) Numbers of stillbirths per 1,000 of all births (live and still). (b) Not available. (c) Three years 1938-40. (d) Four years 1942-45. (e) Excludes Queensland for 1941. (f) Excludes Northern Territory. (g) Less than twenty events: rates not calculated.

NOTE. Because of the smallness of the numbers of stillbirths occurring in the Australian Capital Territory and the Northern Territory, the rates for these Territories (i.e. the number per thousand live births and stillbirths) are subject to considerable fluctuation.

Mortality

Number of deaths

The following tables show the number of deaths, male and female, registered in each State and Territory during 1965. Stillbirths, although registered as both births and deaths in some States, are excluded from the death statistics published herein.

DEATHS, SEXES: STATES AND TERRITORIES, 1965

Sex	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Males . . .	21,553	15,453	8,172	4,836	3,715	1,716	125	200	55,770
Females . . .	17,396	12,578	5,942	3,952	2,559	1,327	36	155	43,945
Persons . . .	38,949	28,031	14,114	8,788	6,274	3,043	161	355	99,715

A summary of the number of deaths in each State and Territory from 1941 to 1965 is given in the following table. Annual averages for each five-year period from 1861 to 1950 were published in Year Book No. 39, page 597.

DEATHS: STATES AND TERRITORIES, 1941 TO 1965

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Annual average—									
1941-45(a)	27,807	20,964	9,715	6,303	4,724	2,488	64	71	72,136
1946-50(a)	29,552	21,827	10,357	6,507	4,802	2,459	76	103	75,683
1951-55	32,135	22,900	11,187	7,182	5,263	2,576	109	131	81,483
1956-60	34,002	24,254	12,008	7,732	5,523	2,668	117	184	86,488
1961-65	37,514	26,569	13,570	8,388	6,043	2,939	152	290	95,465
Annual total—									
1961	35,048	24,500	12,756	7,815	5,729	2,789	128	196	88,961
1962	36,861	25,847	13,182	8,232	5,810	2,870	144	217	93,163
1963	37,226	26,920	13,275	8,201	5,976	2,818	161	317	94,894
1964	39,487	27,548	14,523	8,906	6,429	3,174	164	363	100,594
1965	38,949	28,031	14,114	8,788	6,274	3,043	161	355	99,715

(a) Excludes deaths of defence personnel and of internees and prisoners of war from overseas for the period September 1939 to June 1947.

A graph showing the number of deaths in each year from 1870 to 1965 will be found on plate 22.

Crude death rates

The commonest method of measuring the mortality rate is to relate the number of deaths for a given period to the mean population for that period, thus obtaining the crude death rate. This rate for a given period measures the number per thousand of population by which the population is depleted through deaths during that period.

CRUDE DEATH RATES(a): STATES AND TERRITORIES, 1941 TO 1965

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Average annual rate—									
1941-45(b)	9.73	10.63	9.24	10.26	9.86	10.21	6.4*	5.0*	9.96
1946-50(b)	9.70	10.37	9.13	9.76	9.23	9.30	6.3*	5.3*	9.74
1951-55	9.49	9.55	8.71	9.25	8.49	8.48	6.9*	4.58	9.25
1956-60	9.20	8.91	8.36	8.62	7.90	7.97	5.32	4.31	8.78
1961-65	9.26	8.68	8.69	8.30	7.82	8.10	5.15	3.94	8.74
Annual rate—									
1961	8.95	8.37	8.42	8.06	7.77	7.89	4.9*	3.3*	8.47
1962	9.26	8.64	8.56	8.32	7.69	7.99	5.3*	3.3*	8.70
1963	9.19	8.81	8.50	8.13	7.73	7.74	5.6*	4.3*	8.69
1964	9.58	8.80	9.16	8.63	8.14	8.64	5.2*	4.5*	9.03
1965—									
Males	10.23	9.59	10.02	9.10	9.08	9.17	6.4*	4.3*	9.74
Females	8.33	7.88	7.51	7.57	6.44	7.28	2.5*	3.6*	7.80
Persons	9.28	8.74	8.78	8.34	7.78	8.24	4.7*	4.0*	8.78

(a) Number of deaths per 1,000 of mean population. (b) Excludes deaths of defence personnel, etc., from September 1939 to June 1947.

* Based on too few events to warrant calculation of rates to two decimal places.

NOTE: Crude death rates (i.e., the number of deaths per thousand of mean population) are affected by the particular age and sex composition of the population. In the Australian Capital Territory and the Northern Territory the population at risk in the higher ages is lower proportionately than in other States, largely as a result of the rapid increases of the population in the lower ages.

A graph showing the crude death rate for each year from 1870 to 1965 will be found on plate 23.

Standardized death rates

The death rates quoted on p. 247 are crude rates, i.e., they simply show the number of deaths per thousand of mean population without taking into consideration differences in the sex and age composition of the population. Other conditions being equal, however, the crude death rate of a community will be low if it contains a large proportion of young people (not infants), and conversely it will be relatively high if the population includes a large proportion of elderly people. The foregoing table of crude death rates, therefore, does not indicate comparative incidence of mortality either as between States in the same year or in any one State over a period of years. In order to obtain a comparison of mortality rates on a uniform basis as far as sex and age constitution are concerned, 'standardized' death rates may be computed. These are computed by selecting a particular distribution of age and sex as a standard, and then calculating what would have been the general death rate if the death rates for each sex and in each age group had been as recorded, but the age and sex distribution had been the same as in the standard population. For the standardized rates which follow, the standard population compiled by the International Institute of Statistics has been used. This standard is based upon the age distribution according to sex of nineteen European countries at their censuses nearest to the year 1900. An examination of the age distribution of deaths and the resultant age-specific death rates is made on pages 252-4.

Comparison of crude and standardized death rates

The relative incidence of mortality as between individual States and as between the years 1921, 1933, 1947, 1954 and 1961 is illustrated in the following statement of crude and 'standardized' death rates. These years have been chosen for comparison because the census data give essential information as to sexes and ages of the State populations. Crude death rates are shown to indicate the degree to which they disguise the true position.

CRUDE AND STANDARDIZED DEATH RATES: STATES, 1921 TO 1961

Particulars	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Crude death rate(a)—							
1921 . . .	9.50	10.52	9.37	10.02	10.42	10.30	9.91
1933 . . .	8.58	9.59	8.84	8.44	8.64	9.60	8.92
1947 . . .	9.53	10.44	9.15	9.61	9.39	9.17	9.69
1954 . . .	9.46	9.20	8.63	9.01	8.38	8.67	9.10
1961 . . .	8.95	8.37	8.42	8.06	7.77	7.89	8.47
Standardized death rate(b)—							
1921 . . .	10.35	10.79	10.24	10.38	11.88	10.83	10.58
1933 . . .	8.52	8.74	9.10	7.66	8.74	8.86	8.62
1947 . . .	7.44	7.31	7.47	6.77	7.28	7.21	7.34
1954 . . .	7.24	6.63	6.80	6.52	6.71	7.02	6.90
1961 . . .	6.56	6.12	6.26	5.90	6.02	6.19	6.27

(a) Total deaths per 1,000 of mean population.

(b) See explanation of standardized death rates above.

The comparisons above relate to individual years in which a census of population was taken and should not be used as the basis for general conclusions as to changes in incidence of mortality for other than those years.

True death rates

The main objections to standardized death rates are that the choice of a standard population is arbitrary and that the standardized rates have little value except for comparative purposes, and even then variation of the standard population may make appreciable differences. However, a correct measurement of the mortality of the population can be obtained from life tables. A life table represents the number of survivors at each age from a group of newly-born children

who are subject to given mortality conditions, and from such a table the complete expectation of life at birth can be calculated. The reciprocal of this figure is known as the true death rate, since, if the complete expectation of life of a person at birth is fifty years, say, then each person will on the average die fifty years after birth, so that in a stationary population one person in fifty, or twenty per thousand, will die each year. The true death rate for a given period is unaffected by the particular age distribution of that period and is determined solely by the mortality experience of the period as manifested in the rate of survival from each year of age to the next. The table below sets out complete expectation of life at birth and true death rates for the periods covered by Australian life tables.

**COMPLETE EXPECTATION OF LIFE AT BIRTH
AND TRUE DEATH RATES: AUSTRALIA, 1881-90 TO 1960-62**

Period	Complete expectation of life at birth (years)		True death rate	
	Males	Females	Males(a)	Females(b)
1881-90 . .	47.20	50.84	21.19	19.67
1891-1900 . .	51.06	54.76	19.58	18.26
1901-10 . .	55.20	58.84	18.12	17.00
1920-22 . .	59.15	63.31	16.91	15.80
1932-34 . .	63.48	67.14	15.75	14.89
1946-48 . .	66.07	70.63	15.14	14.16
1953-55 . .	67.14	72.75	14.89	13.75
1960-62 . .	67.92	74.18	14.72	13.48

(a) Number of deaths per 1,000 males in stationary population.

(b) Number of deaths per 1,000 females in stationary population.

The crude death rates and the true death rates of Australia and the more populous countries of the world for the latest available year are shown in the table in International Vital Statistics at the end of this chapter.

Australian Life Tables

Life Tables prior to 1961. It has been the practice at each census from 1911 onwards to prepare Life Tables representative of the mortality experience of Australia. The mortality of the Australian population for the thirty years from 1881 to 1910 inclusive was investigated in 1911 by the Commonwealth Statistician. Tables were compiled for each State and for Australia as a whole in respect of each sex for each of the decennial periods 1881-90, 1891-1900 and 1901-10. These compilations furnished a comprehensive view of Australian mortality in respect of sex, time, and geographical distribution, and practically superseded all Life Tables prepared in Australia prior to 1911. In addition, monetary tables based on the experience for the whole of Australia for the ten years 1901-10 were prepared and published. At the census of 1921 Life Tables were prepared by the Commonwealth Statistician from the recorded census population and the deaths in the three years 1920 to 1922. In 1933, 1947 and 1954, Life Tables based on the census population and the deaths in the years 1932 to 1934, 1946 to 1948 and 1953 to 1955 respectively were compiled by the Commonwealth Actuary.

Life Tables of census of 1961. On the occasion of the 1961 Census, the eighth Life Tables in the series were compiled by the Commonwealth Actuary. These were based on the population recorded at the census, adjusted to allow for variation in the net movement into Australia over the years 1960 to 1962, and deaths during these years. Full particulars of the data used, the method of construction and the tabulation of these Life Tables will be found in the report of the Commonwealth Actuary, which was published by the Commonwealth Statistician in 1966. This report will also appear in Volume VIII of the detailed tables of the 1961 census. The main features of the tables, including comparisons with earlier Australian tables, are set out in the following summary tables.

AUSTRALIAN COMPARATIVE LIFE TABLES

RATES OF MORTALITY (q_x) AT REPRESENTATIVE AGES

Age (x)	1901-10	1920-22	1932-34	1946-48	1953-55	1960-62
----------------	---------	---------	---------	---------	---------	---------

MALES

0 . . .	.09510	.07132	.04543	.03199	.02521	.02239
10 . . .	.00179	.00156	.00119	.00072	.00056	.00041
20 . . .	.00370	.00284	.00219	.00169	.00186	.00173
30 . . .	.00519	.00390	.00271	.00186	.00170	.00157
40 . . .	.00816	.00617	.00460	.00337	.00297	.00300
50 . . .	.01395	.01158	.00966	.00919	.00819	.00804
60 . . .	.02584	.02407	.02216	.00278	.02221	.02176
70 . . .	.06162	.05290	.05082	.05256	.05315	.05177
80 . . .	.13795	.13340	.12659	.12011	.11958	.11617

FEMALES

0 . . .	.07953	.05568	.03642	.02519	.01989	.01757
10 . . .	.00159	.00127	.00087	.00050	.00035	.00028
20 . . .	.00329	.00252	.00183	.00091	.00064	.00060
30 . . .	.00519	.00387	.00279	.00165	.00096	.00082
40 . . .	.00718	.00524	.00402	.00284	.00217	.00187
50 . . .	.00956	.00808	.00744	.00641	.00530	.00464
60 . . .	.01920	.01571	.01466	.01360	.01203	.01074
70 . . .	.04777	.04090	.03802	.03607	.03250	.02933
80 . . .	.11333	.11230	.10106	.10027	.09314	.08507

q_x = probability of dying within one year at specified ages.

RATES OF MORTALITY FOR ONE PERIOD AS A PROPORTION OF THE
RATES FOR THE PRECEDING PERIOD

Age	Males				Females			
	1932-34	1946-48	1953-55	1960-62	1932-34	1946-48	1953-55	1960-62
	1920-22	1932-34	1946-48	1953-55	1920-22	1932-34	1946-48	1953-55
0 . . .	.64	.70	.79	.89	.65	.69	.79	.88
10 . . .	.76	.61	.78	.73	.69	.57	.70	.80
20 . . .	.77	.77	1.10	.93	.73	.50	.70	.94
30 . . .	.69	.69	.91	.92	.72	.59	.58	.85
40 . . .	.75	.73	.88	1.01	.77	.71	.76	.86
50 . . .	.83	.95	.89	.98	.92	.86	.83	.88
60 . . .	.92	1.03	.97	.98	.93	.93	.88	.89
70 . . .	.96	1.03	1.01	.97	.93	.95	.90	.90
80 . . .	.95	.95	1.00	.97	.90	.99	.93	.91

**RATES OF MORTALITY AS A PROPORTION OF THE RATES
FOR THE PERIOD 1901-1910**

Age	Males				Females			
	1932-34	1946-48	1953-55	1960-62	1932-34	1946-48	1953-55	1960-62
	1901-10	1901-10	1901-10	1901-10	1901-10	1901-10	1901-10	1901-10
0 . . .	.48	.34	.27	.24	.46	.32	.25	.22
10 . . .	.66	.40	.31	.23	.55	.31	.22	.18
20 . . .	.59	.46	.50	.47	.56	.28	.19	.18
30 . . .	.52	.36	.33	.30	.54	.32	.18	.16
40 . . .	.56	.41	.36	.37	.56	.40	.30	.26
50 . . .	.69	.66	.59	.58	.78	.67	.55	.49
60 . . .	.86	.88	.86	.84	.76	.71	.63	.56
70 . . .	.82	.85	.86	.84	.80	.76	.68	.61
80 . . .	.92	.87	.87	.84	.89	.88	.82	.75

NUMBER OF SURVIVORS (l_x) AT SELECTED AGES OUT OF 100,000 BIRTHS

Age(x)	Males				Females			
	1901-10	1946-48	1953-55	1960-62	1901-10	1946-48	1953-55	1960-62
0 . . .	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
10 . . .	86,622	95,619	96,488	97,062	88,395	96,549	97,228	97,664
20 . . .	84,493	94,562	95,460	96,215	86,459	95,953	96,774	97,278
30 . . .	80,844	92,967	93,801	94,726	82,909	94,740	96,055	96,649
40 . . .	75,887	90,823	90,861	92,859	78,001	92,758	94,715	95,481
50 . . .	68,221	85,946	87,553	88,473	71,945	89,011	91,573	92,713
60 . . .	56,782	74,251	76,256	77,456	63,247	81,257	84,665	86,537
70 . . .	38,275	52,230	54,054	54,944	46,793	65,398	69,613	72,505
80 . . .	14,330	22,785	23,658	24,669	21,356	35,401	39,633	43,453
90 . . .	1,652	3,144	3,507	3,800	3,566	6,556	8,087	10,005

COMPLETE EXPECTATION OF LIFE (e_x) AT SELECTED AGES

Age(x)	Males				Females			
	1901-10	1946-48	1953-55	1960-62	1901-10	1946-48	1953-55	1960-62
0 . . .	55.20	66.07	67.14	67.92	58.84	70.63	72.75	74.18
10 . . .	53.53	59.04	59.53	59.93	56.38	63.11	64.78	65.92
20 . . .	44.74	49.64	50.10	50.40	47.52	53.47	55.06	56.16
30 . . .	36.52	40.40	40.90	41.12	39.33	44.08	45.43	46.49
40 . . .	28.56	31.23	31.65	31.84	31.47	34.91	35.99	36.99
50 . . .	21.16	22.67	22.92	23.13	23.69	26.14	27.03	27.92
60 . . .	14.35	15.36	15.47	15.60	16.20	18.11	18.78	19.51
70 . . .	8.67	9.55	9.59	9.77	9.96	11.14	11.62	12.19
80 . . .	4.96	5.36	5.47	5.57	5.73	6.02	6.30	6.68

l_x = number surviving at specified ages out of 100,000 births.
 e_x = complete expectation of life at specified ages.

As indicated in the foregoing tables, the progress towards lower mortality rates for both males and females has continued over the past sixty years or more. For example, the probability of a child born in 1961 dying in one year is less than one-quarter of the probability of death in one year attached to the child who was born sixty years ago. Even at advanced ages, the reductions

which have occurred in mortality rates as compared with sixty years ago are very substantial. With the exception of males of ages forty to forty-seven and ages sixty-two to sixty-six lower mortality rates were experienced by males and females during 1960 to 1962 than for the period 1953 to 1955.

There is evidence that female longevity continues to improve at a faster rate than male longevity. It would seem that the risks associated with child-bearing for females are far outweighed by the greater accident propensity of younger males and the more rapid deterioration of health, presumably due to business and other pressures, of older males.

An improvement has occurred in male mortality from accidents of all types. Even though there is some indication that for females the accident rates have deteriorated slightly, the rates are, however, still substantially below the corresponding rates for males.

Age distribution at death

Age at death is recorded for statistical purposes in days for the first week of life, in weeks for the first four weeks, in months for the first year and in completed years of life thereafter. These ages are usually combined in groups for publication, the most common being weeks for the first four weeks, months or groups of months for the first year, single years of age for the first five years, and thereafter the five-year groups 5-9 years, 10-14 years, etc. A summary in this form for the year 1964 is given for Australia in the following table.

DEATHS, BY AGE AT DEATH AND SEX: AUSTRALIA, 1964

Age at death	Males	Females	Persons	Age at death	Males	Females	Persons
Under 1 week	1,631	1,198	2,829	5-9 years	302	210	512
1 week and under 2 weeks ..	85	64	149	10-14 "	285	164	449
2 weeks and under 3 weeks ..	52	42	94	15-19 "	587	265	852
3 weeks and under 4 weeks ..	27	27	54	20-24 "	683	236	919
<i>Total under 4 weeks ..</i>	<i>1,795</i>	<i>1,331</i>	<i>3,126</i>	25-29 "	483	236	719
4 weeks and under 3 months	256	176	432	30-34 "	671	326	997
3 months and under 6 months	240	176	416	35-39 "	921	590	1,511
6 months and under 12 months	217	176	393	40-44 "	1,532	883	2,415
<i>Total under 1 year ..</i>	<i>2,508</i>	<i>1,859</i>	<i>4,367</i>	45-49 "	2,042	1,276	3,318
1 year	220	176	396	50-54 "	3,266	1,724	4,990
2 years	120	88	208	55-59 "	4,541	2,152	6,693
3 "	86	90	176	60-64 "	5,901	3,014	8,915
4 "	83	60	143	65-69 "	6,571	4,109	10,680
<i>Total under 5 years ..</i>	<i>3,017</i>	<i>2,273</i>	<i>5,290</i>	70-74 "	7,975	6,101	14,076
				75-79 "	7,640	7,227	14,867
				80-84 "	5,508	6,705	12,213
				85 years and over	4,302	6,849	11,151
				Age not stated ..	19	8	27
				<i>Total all ages ..</i>	<i>56,246</i>	<i>44,348</i>	<i>100,594</i>

There are different mortality rates at various stages of life, and the actual number of deaths in any period is related to the numbers living at the respective stages. Changes in the number of deaths from one period to another are associated with changes in the rate of mortality in the various age groups and by the changed proportions of persons living in the different groups. The combined effect of various influences, i.e., the steady decline in the rate of mortality, the long-term decline in the birth-rate, and the effects of past and present migration on the age distribution of the population, is shown in the following table, which shows the proportion of deaths in various age groups in ten-year periods from 1901 to 1960 and for the year 1964.

PROPORTION OF DEATHS IN EACH AGE GROUP: AUSTRALIA, 1901 TO 1964 (Per cent)

Period	Age at death (years)								Total
	Under 1	1-4	5-19	20-39	40-59	60-64	65 and over	Unspecified	
1901-10 ..	20.51	6.45	6.37	14.99	17.99	5.31	28.26	0.12	100.00
1911-20 ..	16.66	6.09	5.49	14.44	20.32	6.19	30.68	0.13	100.00
1921-30 ..	13.10	4.51	4.85	12.12	20.55	8.26	36.53	0.08	100.00
1931-40 ..	7.40	2.56	3.83	9.36	20.54	8.36	47.92	0.03	100.00
1941-50 ..	6.79	1.71	2.26	6.01	19.04	9.33	54.84	0.02	100.00
1951-60 ..	5.59	1.33	1.80	4.90	17.27	9.18	59.90	0.03	100.00
1964—									
Males ..	4.46	0.91	2.09	4.90	20.23	10.49	56.89	0.03	100.00
Females ..	4.19	0.93	1.44	3.13	13.61	6.80	69.88	0.02	100.00
Persons ..	4.34	0.92	1.80	4.12	17.31	8.86	62.62	0.03	100.00

A table showing these proportions for males and females separately for the period 1901 to 1950 was published in Year Book No. 39, page 614.

Age-specific death rates

In previous issues of the Year Book, average annual age-specific death rates were given for each State and Australia for the periods 1932-1934, 1946-1948 and 1953-1955 (see Year Books, No. 37, pp. 778-9, No. 39, pp. 615-6 and No. 44, pp. 640-1). These rates were based on the age distribution of the population at the relevant censuses. Rates for the period 1960-1962 are shown in the following table.

AGE-SPECIFIC DEATH RATES(a): STATES, 1960-62

Age group (years)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
MALES							
Under 1(b)	23.6	20.3	22.9	22.9	22.9	20.3	22.4
1-4	1.2	1.1	1.1	1.2	1.2	1.2	1.2
5-9	0.5	0.5	0.5	0.5	0.5	0.6	0.5
10-14	0.5	0.4	0.6	0.5	0.4	0.4	0.5
15-19	1.2	1.2	1.4	1.1	1.2	1.3	1.2
20-24	1.6	1.6	1.8	1.4	1.7	1.6	1.6
25-29	1.5	1.3	1.8	1.6	1.5	1.7	1.5
30-34	1.7	1.6	2.1	1.6	1.6	1.2	1.7
35-39	2.4	2.1	2.6	2.1	2.1	1.9	2.3
40-44	3.9	3.3	4.0	3.4	3.5	3.6	3.7
45-49	6.4	5.7	6.2	5.4	5.0	5.3	6.0
50-54	10.8	9.3	10.2	9.2	9.5	9.1	10.0
55-59	17.8	16.2	15.7	15.7	14.8	16.1	16.6
60-64	28.0	26.2	25.0	24.4	23.8	26.3	26.3
65-69	43.4	42.5	39.8	37.8	40.3	39.6	41.7
70-74	65.9	63.1	59.2	59.5	59.6	65.6	63.1
75-79	97.9	93.6	88.0	88.7	96.7	94.3	94.1
80-84	148.5	144.9	133.9	135.8	140.9	131.2	142.8
85 and over	249.8	242.1	242.3	227.4	244.5	242.9	243.8

FEMALES

Under 1(b)	18.5	16.1	18.4	15.7	19.4	17.3	17.6
1-4	1.1	0.9	1.0	0.9	1.2	0.8	1.0
5-9	0.4	0.4	0.5	0.4	0.3	0.3	0.4
10-14	0.3	0.3	0.3	0.3	0.2	0.3	0.3
15-19	0.5	0.5	0.6	0.4	0.5	0.6	0.5
20-24	0.6	0.6	0.7	0.6	0.5	0.4	0.6
25-29	0.7	0.6	0.9	0.7	0.6	0.6	0.7
30-34	1.0	0.8	1.1	1.0	0.8	0.8	1.0
35-39	1.5	1.3	1.7	1.3	1.4	1.7	1.5
40-44	2.5	2.0	2.7	1.8	2.0	1.9	2.3
45-49	4.0	3.3	4.0	3.0	3.3	3.8	3.7
50-54	5.9	5.1	5.6	5.2	5.0	5.1	5.5
55-59	8.7	8.0	8.0	7.9	7.2	7.9	8.2
60-64	13.8	13.5	12.0	12.7	11.4	13.7	13.2
65-69	23.3	22.2	20.6	21.1	19.4	21.8	22.1
70-74	38.5	37.0	34.8	35.5	35.4	37.6	37.0
75-79	66.3	62.6	60.3	58.3	60.6	62.5	63.2
80-84	108.6	108.3	99.9	108.7	101.9	107.6	106.8
85 and over	208.1	203.7	191.5	199.5	191.5	187.1	202.0

(a) Average annual number of deaths per 1,000 of population in each age group at 30 June 1961.
 (b) Infant deaths per 1,000 live births registered.

Intercensal estimates of the age distribution of the population are available for Australia and for the larger States. The following table shows age-specific death rates i.e. the average number of deaths per 1,000 of population in each age group, for Australia for the year 1964, for males and females.

AGE-SPECIFIC DEATH RATES(a), BY SEX: AUSTRALIA, 1964

Age group (years)	Males	Females	Age group (years)	Males	Females
Under 1(b)	21.2	16.7	45-49	6.2	3.9
1-4	1.1	0.9	50-54	10.3	5.7
5-9	0.5	0.4	55-59	17.4	8.6
10-14	0.5	0.3	60-64	28.2	13.9
15-19	1.2	0.6	65-69	44.3	22.1
20-24	1.7	0.6	70-74	68.1	38.9
25-29	1.3	0.7	75-79	98.8	65.4
30-34	1.8	1.0	80-84	155.1	116.1
35-39	2.3	1.6	85 and over	260.6	212.8
40-44	4.0	2.4			

(a) Average number of deaths per 1,000 of mid-year population in each age group estimated in respect of 30 June 1964. (b) Infant deaths per 1,000 live births registered.

Infant deaths and death rates—States and Territories

Compared with other countries, Australia occupies a favourable position in respect of infant mortality. In 1964, only a few countries recorded a lower rate than Australia. Rates for Australia and the more populous countries of the world for the latest available year are shown in the table in International Vital Statistics, pp. 269-70. The next tables show, for each State and Territory for the period 1941 to 1965, the number of deaths under one year of age and the rates of infant mortality under one year, and for the period 1936 to 1964 the rates under four weeks, and four weeks and under one year.

INFANT MORTALITY UNDER ONE YEAR: STATES AND TERRITORIES, 1941 TO 1965

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Annual average—									
1941-45	2,034	1,311	804	413	347	213	7	7	5,136
1946-50	1,990	1,129	770	431	370	187	11	14	4,902
1951-55	1,852	1,113	730	407	384	184	17	14	4,701
1956-60	1,770	1,205	717	410	362	176	25	18	4,683
1961-65	1,685	1,168	696	407	350	156	28	34	4,524
Annual total—									
1961	1,800	1,173	733	448	336	151	21	27	4,689
1962	1,825	1,219	754	409	380	184	37	32	4,840
1963	1,673	1,242	722	399	353	153	27	38	4,607
1964	1,634	1,098	673	397	328	166	30	41	4,367
1965	1,492	1,109	598	385	352	125	23	34	4,118
Annual average rate(a)—									
1941-45	35.9	34.5	34.3	32.9	33.3	39.3	61.7	18.7	34.97
1946-50	28.9	23.8	27.5	26.5	28.1	26.5	37.4	19.9	26.98
1951-55	25.1	20.7	23.6	22.6	24.4	23.7	36.3	15.4	23.34
1956-60	22.2	19.7	21.0	20.5	21.4	20.6	36.0	13.7	21.05
1961-65	20.3	17.9	19.7	19.0	20.8	18.5	31.2	17.6	19.42
Annual rate(a)—									
1961	20.8	17.8	20.0	20.0	19.7	16.8	23.9	15.6	19.54
1962	21.4	18.5	21.1	19.1	22.3	20.7	40.0	17.6	20.41
1963	19.9	18.9	20.1	18.7	20.4	17.9	31.4	19.0	19.55
1964	20.3	16.9	19.2	19.0	19.7	20.1	32.9	21.0	19.06
1965	19.1	17.5	17.8	18.4	21.7	16.6	25.2	15.8	18.48

(a) Number of deaths of children aged under one year per 1,000 live births registered.

**INFANT MORTALITY RATES^(a)—UNDER FOUR WEEKS
STATES AND TERRITORIES, 1936 TO 1964**

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Average annual rate—									
1936-40. .	27.6	25.9	26.1	21.6	22.6	29.6	(b)	(b)	26.19
1941-45. .	24.3	24.3	24.3	20.9	20.6	27.1	35.3	12.5	23.85
1946-50. .	20.5	17.6	19.9	18.4	19.5	19.3	21.4	15.8	19.34
1951-55. .	17.3	15.2	17.1	14.9	17.3	16.3	19.6	11.3	16.45
1956-60. .	16.0	14.5	15.1	13.7	15.0	13.3	24.2	9.6	15.07
Annual rate—									
1960 . .	15.2	15.8	13.7	13.3	15.9	11.2	27.0	(b)	14.64
1961 . .	14.9	13.5	14.8	13.0	12.8	11.9	(b)	(b)	14.01
1962 . .	15.5	14.2	15.0	13.4	14.5	14.1	(b)	11.5	14.71
1963 . .	14.1	14.9	14.8	12.9	14.9	12.1	(b)	13.5	14.32
1964 . .	14.3	12.9	13.5	13.3	13.0	13.8	25.2	15.3	13.64

(a) Number of deaths of children aged under four weeks per 1,000 live births registered. (b) Less than twenty events, rates not calculated.

**INFANT MORTALITY RATES^(a)—FOUR WEEKS AND UNDER ONE YEAR
STATES AND TERRITORIES, 1936 TO 1964**

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Average annual rate—									
1936-40. .	13.5	11.7	10.6	11.5	17.1	11.7	(b)	(b)	12.62
1941-45. .	11.6	10.2	10.0	12.1	12.7	12.2	(b)	(b)	11.12
1946-50. .	8.4	6.3	7.5	8.1	8.6	7.2	15.9	(b)	7.64
1951-55. .	7.8	5.5	6.5	7.6	7.1	7.3	16.7	(b)	6.89
1956-60. .	6.2	5.2	5.8	6.8	6.4	7.3	11.8	4.0	5.98
Annual rate—									
1960 . .	5.9	4.8	5.2	5.7	5.7	7.9	(b)	(b)	5.52
1961 . .	6.0	4.3	5.2	7.0	6.9	4.9	(b)	(b)	5.53
1962 . .	5.9	4.3	6.1	5.7	7.8	6.6	(b)	(b)	5.70
1963 . .	5.8	4.0	5.3	5.8	5.6	5.9	(b)	(b)	5.23
1964 . .	6.0	4.0	5.7	5.8	6.7	6.3	(b)	(b)	5.42

(a) Number of deaths of children aged four weeks and under one year per 1,000 live births registered. (b) Less than twenty events; rates not calculated.

Because of the smallness of the numbers of these deaths occurring in the Australian Capital Territory and the Northern Territory, the rates for these Territories (i.e., number of such deaths per thousand live births) are subject to considerable fluctuation.

Infant deaths and death rates—Australia

The fact that out of 602,835 male infants born from 1960 to 1964, 13,275 (22.02 per 1,000) died during the first year of life, while of 569,396 female infants only 9,871 (17.34 per 1,000) died during the first year, accords with the universal experience that during the first few years of life the higher death rate of male infants tends to counteract the excess of male births. Stillbirths, for which masculinity is also higher, are not included in any of the tables relating to deaths.

As shown by the following table, the disparity is greater during the first four weeks of life, termed the neonatal period, than during the remainder of the first year of life, or the post-neonatal period.

INFANT DEATHS AND MORTALITY RATES, BY SEX: AUSTRALIA, 1936 TO 1964

Period	Number of deaths						Rates(a)					
	Neonatal— under four weeks		Post- neonatal— four weeks and under one year		Total under one year		Neonatal— under four weeks		Post- neonatal— four weeks and under one year		Total under one year	
	Males	Fe- males	Males	Fe- males	Males	Fe- males	Males	Fe- males	Males	Fe- males	Males	Fe- males
	ANNUAL AVERAGES						AVERAGE ANNUAL RATES					
1936-40 .	1,816	1,353	863	663	2,679	2,016	29.30	22.93	13.93	11.23	43.23	34.16
1941-45 .	2,007	1,495	914	720	2,921	2,215	26.66	20.88	12.14	10.05	38.80	30.93
1946-50 .	2,024	1,490	784	604	2,808	2,094	21.68	16.86	8.40	6.84	30.08	23.70
1951-55 .	1,907	1,406	776	612	2,683	2,018	18.47	14.32	7.52	6.24	25.99	20.56
1956-60 .	1,921	1,432	741	589	2,662	2,021	16.81	13.24	6.48	5.45	23.29	18.69
	ANNUAL TOTALS						ANNUAL RATES					
1960 . . .	1,934	1,437	717	555	2,651	1,992	16.33	12.84	6.06	4.96	22.39	17.80
1961 . . .	1,951	1,410	739	589	2,690	1,999	15.85	12.06	6.00	5.04	21.85	17.10
1962 . . .	2,038	1,451	752	599	2,790	2,050	16.69	12.62	6.16	5.21	22.85	17.83
1963 . . .	1,946	1,429	690	542	2,636	1,971	16.06	12.48	5.70	4.73	21.76	17.21
1964 . . .	1,795	1,331	713	528	2,508	1,859	15.20	11.98	6.04	4.75	21.24	16.73

(a) Number of deaths per 1,000 male or female live births registered.

From the following table, showing particulars of infant deaths in the first four weeks of life, or the neonatal period, it will be seen that for both males and females the risk of death is very much greater during the first day of life than subsequently.

INFANT DEATHS AND MORTALITY RATES—UNDER FOUR WEEKS, BY SEX AUSTRALIA, 1936 TO 1964

Period	Number of deaths						Rates(a)											
	Early neonatal				Late neonatal— one week and under four weeks		Early neonatal				Late neonatal— one week and under four weeks							
	Under one day		One day and under one week				Under one day		One day and under one week									
	Males	Fe- males	Males	Fe- males	Males	Fe- males	Males	Fe- males	Males	Fe- males	Males	Fe- males						
ANNUAL AVERAGES													AVERAGE ANNUAL RATES					
1936-40	(b)	(b)	c 1,496	c 1,120	320	233	(b)	(b)	c24.13	c18.99	5.17	3.94						
1941-45	906	674	728	541	373	280	12.03	9.42	9.67	7.55	4.96	3.91						
1946-50	986	731	758	539	280	220	10.56	8.28	8.12	6.09	3.00	2.49						
1951-55	918	713	742	508	247	185	8.88	7.26	7.19	5.17	2.40	1.89						
1956-60	972	765	705	490	244	177	8.50	7.07	6.17	4.53	2.13	1.64						
ANNUAL TOTALS													ANNUAL RATES					
1960	967	755	715	516	252	166	8.17	6.75	6.04	4.61	2.13	1.48						
1961	976	744	739	490	236	176	7.93	6.36	6.00	4.19	1.92	1.51						
1962	1,080	733	719	548	239	170	8.84	6.38	5.89	4.76	1.96	1.48						
1963	1,043	765	691	509	212	155	8.61	6.68	5.70	4.44	1.75	1.36						
1964	940	719	691	479	164	133	7.96	6.47	5.85	4.31	1.39	1.20						

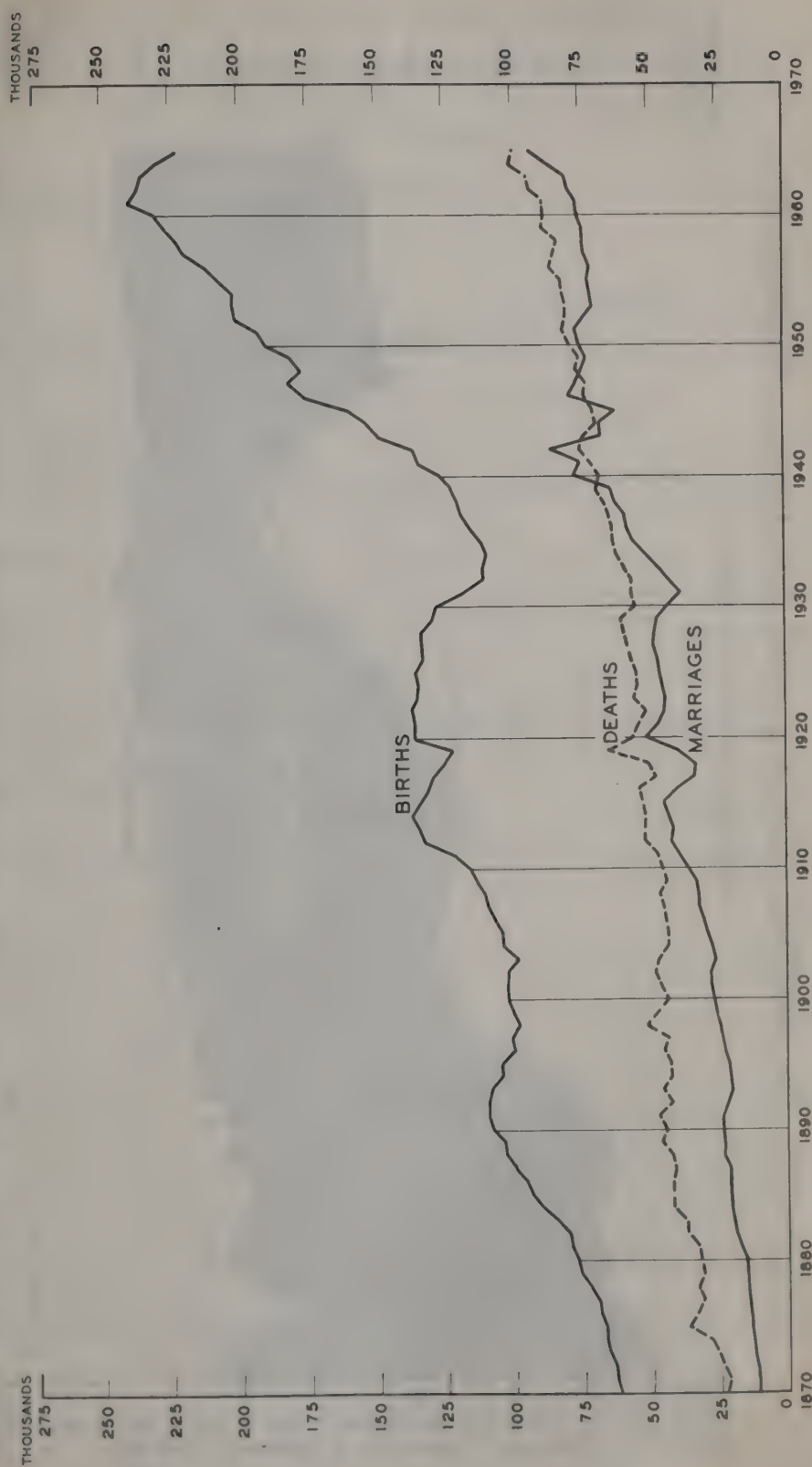
(a) Number of deaths per 1,000 male or female live births registered.

(b) Not available.

(c) Includes under one day.

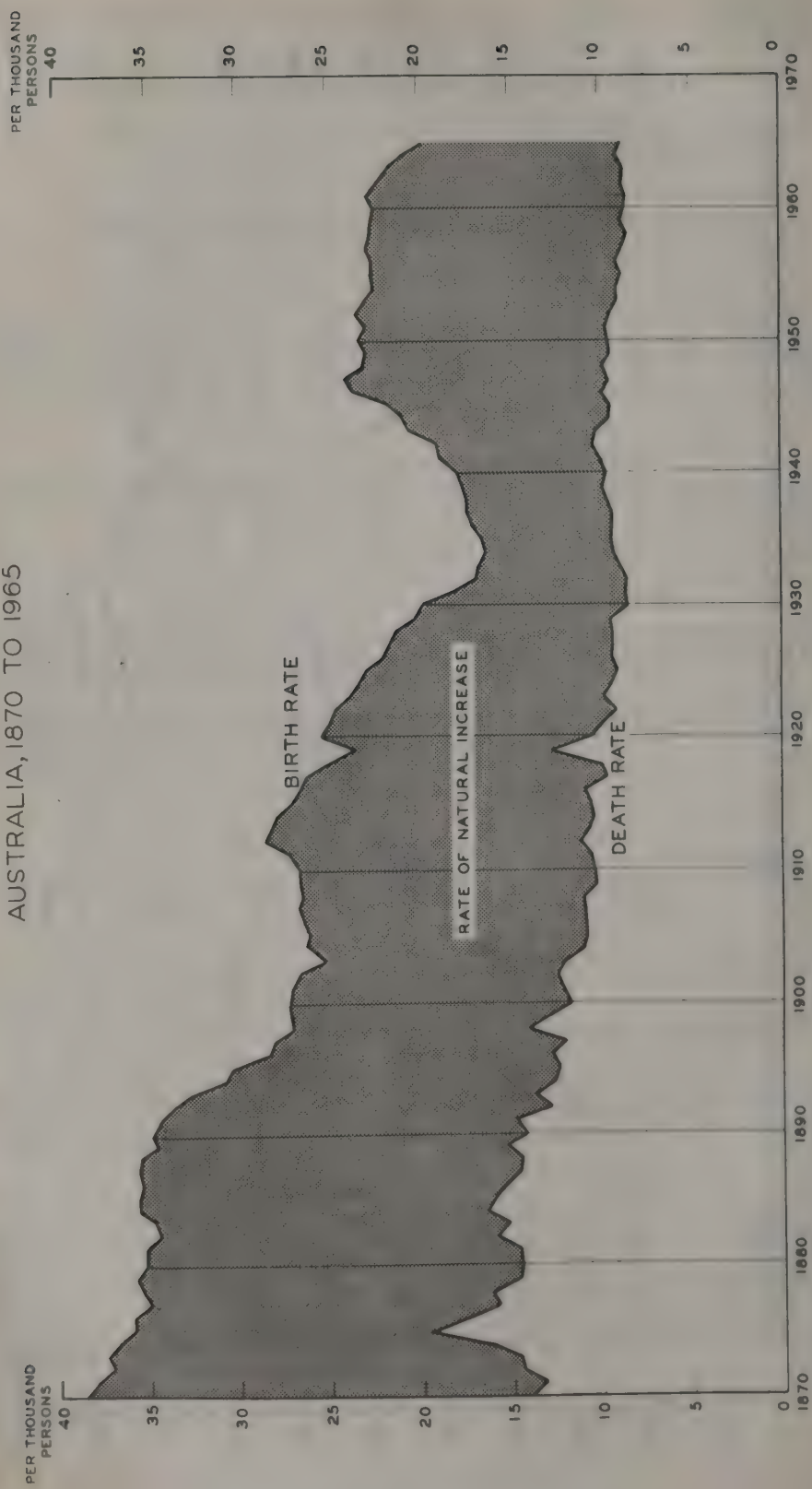
A graph showing infant mortality rates for each year from 1910 to 1965 will be found on plate 25.

BIRTHS, DEATHS, AND MARRIAGES: AUSTRALIA, 1870 TO 1965



RATES OF BIRTHS, DEATHS, AND NATURAL INCREASE

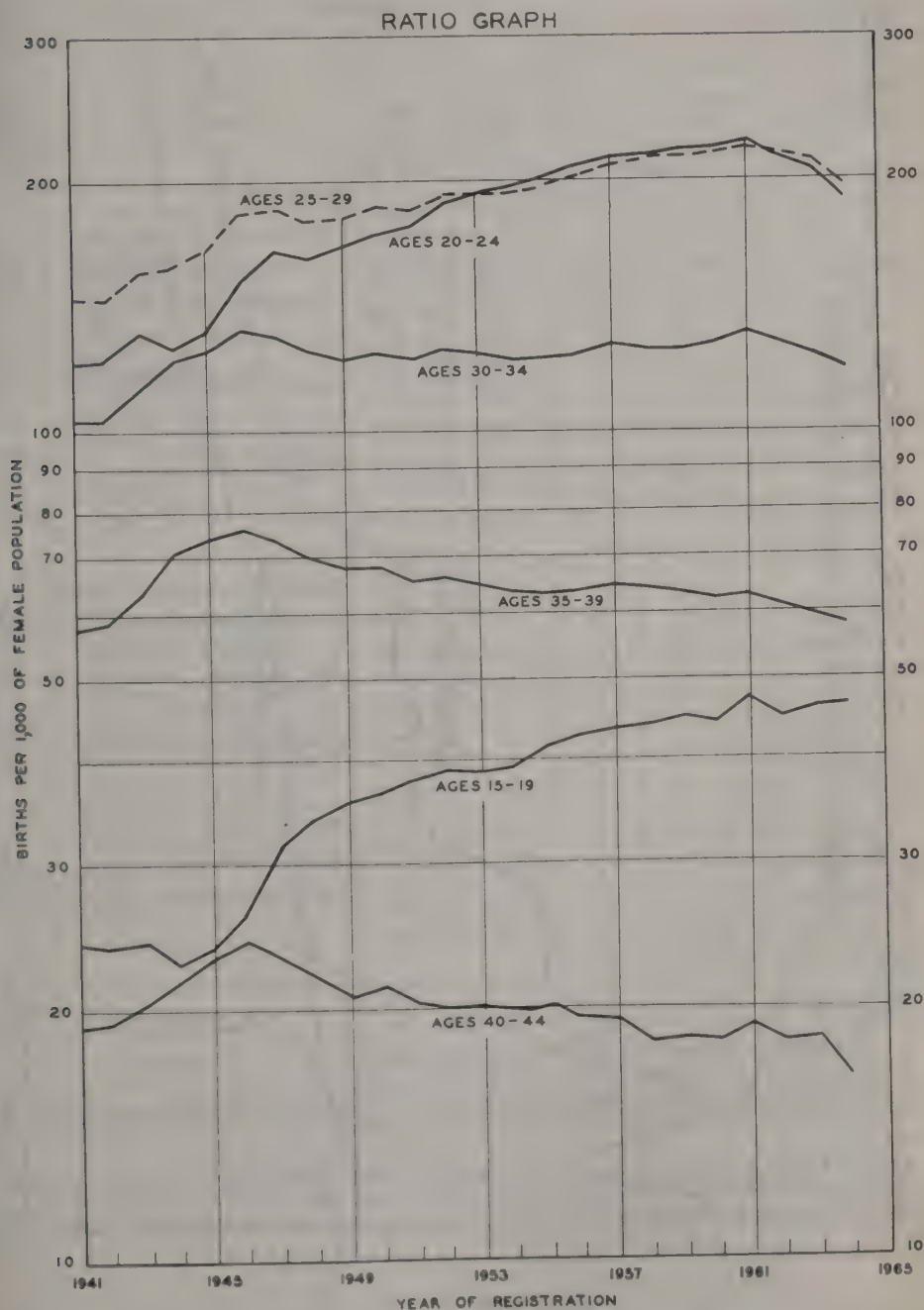
AUSTRALIA, 1870 TO 1965



BIRTH RATES, BY AGE OF MOTHER

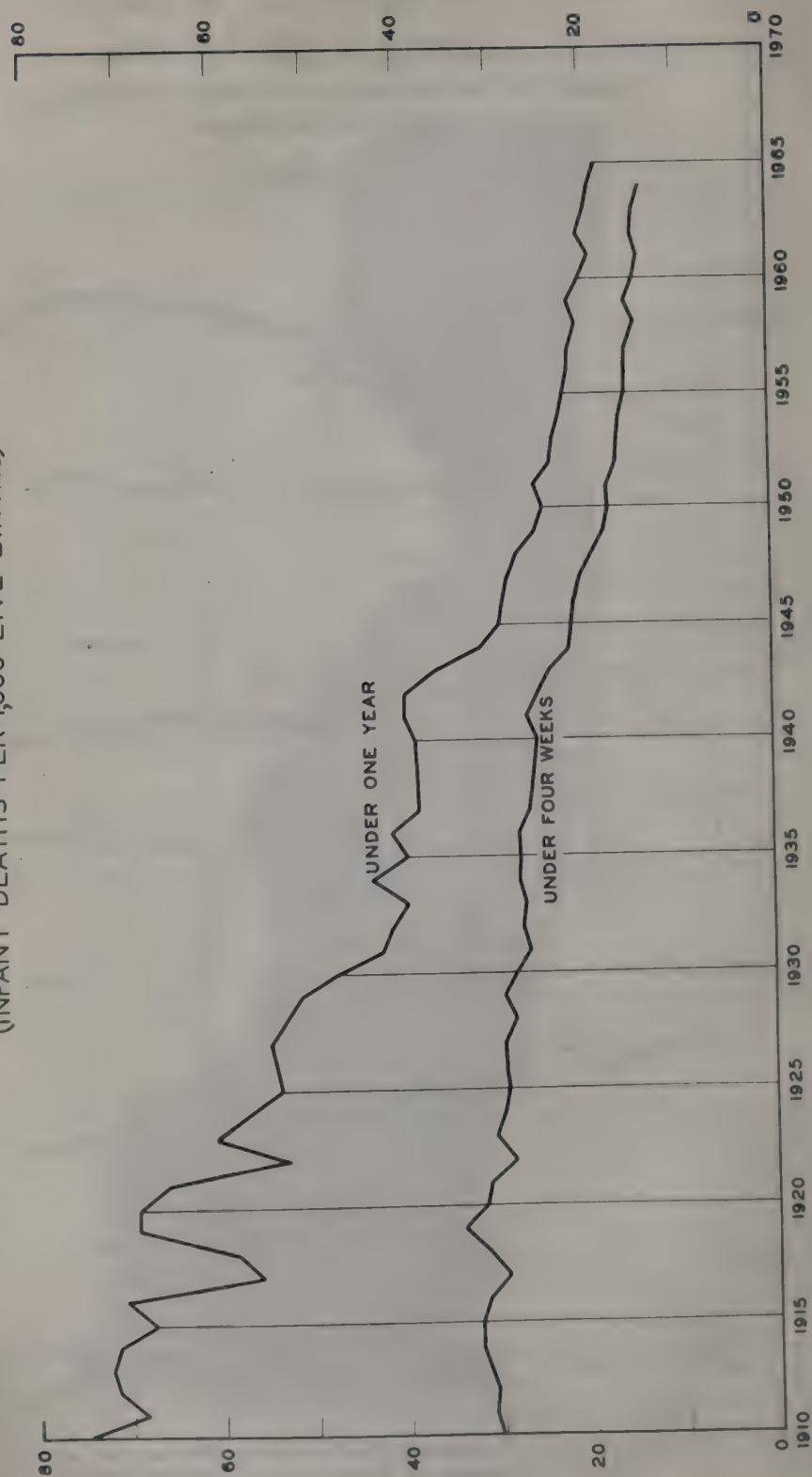
AUSTRALIA, 1941 TO 1964

(NUMBER OF BIRTHS PER 1,000 OF FEMALE POPULATION
IN EACH AGE GROUP)



NOTE: THE VERTICAL SCALE IS LOGARITHMIC, AND THE CURVES RISE AND FALL ACCORDING TO THE RATE OF INCREASE OR DECREASE; ACTUAL NUMBERS ARE INDICATED BY THE SCALE.

INFANT MORTALITY RATES: AUSTRALIA, 1910 TO 1965 (INFANT DEATHS PER 1,000 LIVE BIRTHS)



Causes of death—children under one year

Causes of death of children under one year of age should be considered in relation to age at death, because the emphasis on various causes changes rapidly as age at death varies. A summary for 1964 of deaths of children under one year of age, classified according to principal causes of death and age at death, is given in the following table.

DEATHS OF CHILDREN UNDER ONE YEAR OF AGE, BY CAUSE OF DEATH
AUSTRALIA, 1964

Inter- national Classi- fication of Diseases number	Cause of death	Age at death										Total under one year
		Days		Total under one week	Weeks			Months				
		Un- der 1	1-6		1	2	3	1-2 (a)	3-5	6-8	9- 11	
750-759 760, 761 762 769 770 771 773 774-776	Causes mainly of pre-natal and natal origin— Congenital malformations . . Birth injury . . Post-natal asphyxia and atelec- tasis . . Attributed to maternal tox- aemia . . Erythroblastosis . . Haemorrhagic disease of the newborn . . Ill-defined diseases of early infancy . . Immaturity alone, or primary to diseases other than of early infancy . . Total	182 333 336 43 71 12 119 493 1,589	198 229 195 36 22 33 105 256 1,074	380 562 531 79 93 45 224 749 2,663	51 20 7 2 1 1 6 22 110	53 1 4 1 2 5 66	33 1 2 1 1 37	141 .. 6 2 7 4 160	114 .. 1 1 5 1 122	47 3 .. 50	30 1 1 .. 32	849 583 549 83 94 50 250 782 3,240
571, 764 (b) (c) 057, 340 (d) E921-E925 E926, E980-E985 (e)	Causes mainly of post-natal origin— Gastro-enteritis (including diarrhoea of newborn) . . Pneumonia and bronchitis . . Septicaemia, skin and sub- cutaneous tissue infections, sepsis of newborn . . Meningococcal infections and non-meningococcal meningitis Causes classified as infective or mainly infective in origin not specified above . . Accidental mechanical suffoca- tion from vomit, food, foreign body or in cot . . Lack of care, neglect, infant- icide . . Other accidents, poisonings and violence . . Total . . . . .	.. 18 .. 3 1 27	1 45 11 2 2 2 3 5 1 65	1 63 14 2 2 .. 3 5 2 92	3 17 6 8 1 1 2 34	3 15 2 .. 1 1 2 .. 2 26	2 6 .. 4 1 1 3 .. 5 13	15 119 7 9 7 14 50 37 1 215	22 122 7 9 9 19 37 11 228	19 71 1 8 8 15 15 11 137	17 39 1 10 10 10 9 102	82 452 33 46 62 115 9 46 847
140-239 Residual	Neoplasms Other causes remaining . . All causes	2 41 1,659	1 30 1,170	3 71 2,829	.. 5 149	.. 2 94	.. 4 54	7 50 432	2 64 416	2 33 222	8 29 171	22 258 4,367

(a) Age four weeks and under three months. (b) 490-493, 500-502, 763. (c) 053, 690-698, 765-768.
(d) 001-052, 054-056, 058-138, 391-393, 470-483, 518, 519. (e) E800-E920, E927-E979, E990-E999.

The following table summarizes the detail contained in the previous table, and, in addition, shows the proportions of deaths from the various causes in each of the periods—under one week, one week and under one month, one month and under one year, and total under one year.

DEATHS OF CHILDREN UNDER ONE YEAR OF AGE, BY CAUSE OF DEATH NUMBERS AND PROPORTIONS, AUSTRALIA, 1964

Inter- national Classi- fication of Diseases number	Cause of death	Age at death						Total under one year	
		Under one week		One week and under one month		One month and under one year			
		Num- ber	Per cent	Num- ber	Per cent	Num- ber	Per cent	Num- ber	Per cent
	Causes mainly of pre-natal and natal origin—								
750-759	Congenital malformations	380	13.4	137	46.1	332	26.7	849	19.4
760, 761	Birth injury	562	19.8	21	7.1	..	..	583	13.4
762	Post-natal asphyxia and atelec- tasis	531	18.8	11	3.7	7	0.6	549	12.6
769	Attributed to maternal toxæmia	79	2.8	3	1.0	1	0.1	83	1.9
770	Erythroblastosis	93	3.3	1	0.3	..	..	94	2.2
771	Haemorrhagic disease of the newborn	45	1.6	2	0.7	3	0.2	50	1.1
773	Ill-defined diseases of early in- fancy	224	7.9	10	3.4	16	1.3	250	5.7
774-776	Immaturity alone, or primary to diseases other than of early infancy	749	26.5	28	9.4	5	0.4	782	17.9
	Total	2,663	94.1	213	71.7	364	29.3	3,240	74.2
	Causes mainly of post-natal origin—								
571, 764	Gastro-enteritis (including diarrhoea of newborn)	1	(b)	8	2.7	73	5.9	82	1.9
(a)	Pneumonia and bronchitis	63	2.3	38	12.8	351	28.3	452	10.3
	Other	28	1.0	27	9.1	258	20.8	313	7.2
	Total	92	3.3	73	24.6	682	55.0	847	19.4
140-239, residual	Neoplasms and other causes remaining	74	2.6	11	3.7	195	15.7	280	6.4
	All causes	2,829	100.0	297	100.0	1,241	100.0	4,367	100.0

(a) 490-493, 500-502, 763.

(b) Rate less than 0.05.

Causes of death

The classification of causes of death adopted for Australia by the Commonwealth Bureau of Census and Statistics at the inception of its mortality statistics in 1907 was that introduced by the International Institute of Statistics in 1893, reviewed by that Institute in 1899, and revised by an International Commission in 1900. This classification became known as the International List of Causes of Death, and further international revisions in 1909 (Second), 1920 (Third), 1929 (Fourth), 1938 (Fifth), 1948 (Sixth), and 1955 (Seventh), were successively adapted for use in Australian statistics.

The Sixth Revision of the International Statistical Classification of Diseases, Injuries and Causes of Death was used in Australia for deaths registered in 1950 to 1957. The Seventh Revision has been used for deaths registered in 1958 and subsequent years. The Sixth Revision, for the first time in connection with the International Classification, laid down rules for a uniform method of selecting the main cause to be tabulated if more than one cause is stated on the death certificate. These rules were maintained in the Seventh Revision, which was concerned mainly with certain essential changes and amendment of errors and inconsistencies in the previous classification. Prior to 1950 the rules adopted in Australia for the selection of the cause of death to be tabulated were those laid down in the United States Manual of Joint Causes of Death, first published in 1914 and revised to conform to successive revisions of the International List.

The adoption of the new method introduced with the Sixth Revision and maintained in the Seventh marked a fundamental change in Australian cause of death statistics, emphasis now being placed on the underlying cause of death as indicated by the certifying practitioner. This change in principle affects the comparability of the statistics for 1950 and subsequent years with those for earlier years. A complete detailed classification of causes of death for Australia for 1950 according to both the Fifth and Sixth Revisions was shown in *Demography*, Bulletin No. 68, 1950.

In order to facilitate the concise presentation of cause of death statistics, the present International Classification provides two special lists of causes for tabulation—the Intermediate List of 150 causes and the Abbreviated List of 50 causes. The latter has been used as the base of the cause of death tabulations for 1964 which follow. Some categories have been sub-divided to show additional particulars of interest in Australian statistics. Tables A and B show deaths of males and females, respectively, in age groups, and Table C shows the total numbers of males and females who died, the death rates per million of mean population, and the percentage of total deaths.

A. DEATHS OF MALES, BY CAUSE OF DEATH AND AGE GROUP: AUSTRALIA, 1964
 ABBREVIATED LIST OF 50 CAUSES (BASED ON THE SEVENTH REVISION OF THE INTERNATIONAL LIST)

Cause of death(a)	Detailed list numbers	Age groups (years)									Total
		0	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65 and over	
B 1 Tuberculosis of respiratory system	001-008	..	..	..	1	1	15	36	72	d 182	307
B 2 Tuberculosis, other forms	010-019	..	1	..	..	1	1	2	3	5	13
B 3 Syphilis and its sequelae	020-029	..	..	..	..	..	2	3	16	33	54
B 6 Dysentery, all forms	045-048	2	1	..	..	..	..	1	2	1	7
B 8 Diphtheria	055	..	1	..	..	..	..	..	..	..	1
B 9 Whooping cough	056	..	1	..	..	..	..	..	..	..	1
B10 Meningococcal infections	057	9	6	..	1	..	..	2	1	1	20
B14 Measles	085	1	3	3	1	..	..	..	..	..	8
B17 All other diseases classified as infective and parasitic	(b)	14	12	11	7	6	10	19	18	47	144
Malignant neoplasms of											
Digestive organs and peritoneum	150-159	2	2	2	6	24	97	279	682	1,748	2,842
Lung	162, 163	..	..	1	1	7	52	258	693	e 1,016	2,028
Breast	170	..	..	..	..	..	..	1	2	8	11
B18 Genital organs	171-179	..	2	1	6	12	11	13	94	795	934
Urinary organs	180, 181	1	1	3	..	2	10	40	115	319	491
Leukaemia and aleuk- aemia	204	4	14	42	20	13	32	35	66	156	382
Other malignant and lymphatic neoplasms	(c)	5	20	50	43	64	135	269	386	d 647	1,619
B19 Benign neoplasms and neo- plasms of unspecified nature	210-239	2	..	3	3	3	14	17	13	25	80
B20 Diabetes mellitus	260	..	..	..	2	4	23	44	131	383	587
B21 Anaemias	290-293	1	2	..	1	1	2	9	17	85	118
B22 Vascular lesions affecting central nervous system	330-334	3	2	5	17	30	118	336	881	4,120	5,512
B23 Non-meningococcal men- ingitis	340	24	6	2	3	1	6	3	3	11	59
B24 Rheumatic fever	400-402	..	..	2	3	1	4	1	..	..	11
B25 Chronic rheumatic heart disease	410-416	..	..	..	18	22	31	63	87	119	340
B26 Arteriosclerotic heart dis- ease	420	..	..	..	6	53	531	1,942	4,147	f 10,190	16,869
B26 Degenerative heart disease	421, 422	3	1	2	5	11	48	149	271	1,848	2,338
B27 Other diseases of heart	430-434	8	5	5	8	14	36	67	200	d 1,320	1,665
B28 Hypertension with heart disease	440-443	..	..	..	..	..	9	43	118	441	611
B29 Hypertension without men- tion of heart	444-447	..	..	..	1	3	29	56	66	254	409
B30 Influenza	480-483	6	7	4	4	2	6	6	13	109	157
B31 Pneumonia	490-493	175	70	17	15	19	53	93	220	1,388	2,050
B32 Bronchitis	500-502	14	13	3	3	2	15	86	361	1,398	1,895
B33 Ulcer of stomach and duo- denum	540, 541	..	1	..	1	8	22	52	121	274	479
B34 Appendicitis	550-553	..	3	5	6	1	3	2	3	16	39
B35 Intestinal obstruction and hernia	560, 561, 570	35	4	2	3	2	6	14	32	d 169	267

For footnotes see following page.

A. DEATHS OF MALES, BY CAUSE OF DEATH AND AGE GROUP AUSTRALIA, 1964—continued

ABBREVIATED LIST OF 50 CAUSES (BASED ON THE SEVENTH REVISION OF THE
INTERNATIONAL LIST)—continued

Cause of death(a)	Detailed list numbers	Age groups (years)									Total
		0	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65 and over	
B36 Gastritis, duodenitis, enteritis, and colitis except diarrhoea of the newborn	543, 571, 572	43	25	4	3	3	10	12	34	92	226
B37 Cirrhosis of liver	581	1	..	2	..	5	41	87	113	110	359
B38 Nephritis and nephrosis ..	590-594	1	3	5	16	24	38	81	103	(e) 252	523
B39 Hyperplasia of prostate ..	610	..	..	..	..	..	..	1	16	353	370
B41 Congenital malformations	750-759	464	52	44	28	15	17	19	12	16	667
B42 Birth injuries, postnatal asphyxia and stelectasia..	760-762	662	..	..	..	..	..	..	..	..	662
B43 Infections of the newborn..	763-768	78	..	..	..	..	..	..	..	..	78
B44 Other diseases peculiar to early infancy, and immaturity unqualified ..	769-776	732	1	..	..	..	..	..	..	..	733
B45 Senility without mention of psychosis, ill-defined and unknown causes ..	780-795	9	3	2	1	1	7	14	20	(g) 191	248
General arteriosclerosis ..	450	..	..	..	..	..	1	11	52	1,065	1,129
Other diseases of circulatory system ..	451-468	..	..	1	3	8	24	62	151	470	719
B46 Other diseases of respiratory system ..	{ 470-475	36	15	6	5	10	16	44	126	(d) 438	696
Residual ..	{ 510-527	62	59	68	70	62	173	260	377	1,080	2,211
BE47 Motor vehicle accidents ..	E810-E835	5	50	134	622	320	282	282	221	292	2,208
BE48 All other accidents ..	E800-E802, E840-E962	102	113	149	230	199	268	249	203	(d) 377	1,890
BE49 Suicide and self-inflicted injury ..	E963, E970-E979	..	..	2	94	176	238	232	173	156	1,071
BE50 Homicide and operations of war ..	E964, E965, E980-E999	4	10	7	13	24	17	13	7	15	110
All causes ..	..	2,508	509	587	1,270	1,154	2,453	5,308	10,442	32,015 (h)	56,246

(a) No male deaths were recorded in the following categories in 1964: B4, Typhoid fever (040); B5, Cholera (043); B7, Scarlet fever and streptococcal sore throat (050, 051); B11, Plague (058); B12, Acute poliomyelitis (080); B13, Smallpox (084); B15, Typhus and other rickettsial diseases (100-108); B16, Malaria (110-117). (b) 030-039, 041, 044, 049, 052-054, 059-074, 081-083, 086-093, 120-138. (c) All causes, 140-205 not shown above. (d) Includes 1, age 'not stated'. (e) Includes 2, age 'not stated'. (f) Includes 6, age 'not stated'. (g) Includes 3, age 'not stated'. (h) Includes 19, age 'not stated'.

B. DEATHS OF FEMALES, BY CAUSE OF DEATH AND AGE GROUP: AUSTRALIA, 1964

ABBREVIATED LIST OF 50 CAUSES (BASED ON THE SEVENTH REVISION OF THE
INTERNATIONAL LIST)

Cause of death(a)	Detailed list numbers	Age groups (years)									Total
		0	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65 and over	
B 1 Tuberculosis of respiratory system ..	001-008	..	..	..	1	3	12	19	14	32	81
B 2 Tuberculosis, other forms ..	010-019	..	..	1	..	..	3	1	3	4	12
B 3 Syphilis and its sequelae ..	020-029	..	..	..	1	..	..	1	4	12	18
B 6 Dysentery, all forms ..	045-048	2	1	..	..	..	..	..	..	2	5
B 9 Whooping Cough ..	056	3	..	..	..	..	..	..	..	..	3
B10 Meningococcal infections ..	057	1	6	..	..	..	..	1	1	..	9
B14 Measles ..	085	1	5	..	..	..	..	..	..	..	6
B17 All other diseases classified as infective and parasitic ..	(b)	12	11	4	7	8	11	25	14	40	132

For footnotes see following page.

B. DEATHS OF FEMALES, BY CAUSE OF DEATH AND AGE GROUP AUSTRALIA, 1964—continued

ABBREVIATED LIST OF 50 CAUSES (BASED ON THE SEVENTH REVISION OF THE
INTERNATIONAL LIST)—continued

Cause of death(a)	Detailed list numbers	Age groups (years)										Total
		0	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65 and over		
B18 Malignant neoplasms of Digestive organs and peritoneum ..	150-159	1	..	2	2	22	84	209	403	d 1,763	2,486	
	162, 163	..	..	..	..	2	9	63	68	155	297
	Lung .. .. .	..	..	..	..	20	129	254	298	652	1,353
	Breast	170	..	..	..	20	93	195	264	455	1,034
	Genital organs ..	171-179	..	..	1	6	20	93	195	264	455
	Urinary organs ..	180, 181	..	4	1	2	1	9	20	50	167	254
Leukaemia and aleuk-aemia ..	204	2	17	40	16	11	21	28	42	115	292	
Other malignant and lymphatic neoplasms ..	(c)	3	21	22	39	41	79	156	215	567	1,143	
B19 Benign neoplasms and neoplasms of unspecified nature ..	210-239	2	2	3	1	9	20	20	12	41	110	
B20 Diabetes mellitus ..	260	..	..	1	4	1	8	29	136	709	888
B21 Anaemias ..	290-293	1	6	6	1	2	1	9	12	123	161	
B22 Vascular lesions affecting central nervous system ..	330-334	..	2	8	14	30	143	388	762	d 6,263	7,610	
B23 Non-meningococcal meningitis ..	340	12	4	..	1	2	3	2	7	4	35	
B24 Rheumatic fever ..	400-402	..	..	5	4	2	1	..	..	..	12
B25 Chronic rheumatic heart disease ..	410-416	..	..	..	4	12	37	69	96	215	433
Arteriosclerotic heart disease ..	420	..	..	1	3	7	104	424	1,393	e 8,129	10,061
B26 Degenerative heart disease ..	421, 422	1	4	2	7	13	24	51	156	2,347	2,605	
B27 Other diseases of heart ..	430-434	6	4	3	3	7	16	42	101	1,469	1,651	
B28 Hypertension with heart disease ..	440-443	..	..	..	..	2	13	40	72	(d) 755	882
B29 Hypertension without mention of heart ..	444-447	..	..	..	2	6	24	39	33	294	398
B30 Influenza ..	480-483	3	..	4	1	3	9	2	11	112	145	
B31 Pneumonia ..	490-493	155	47	23	10	14	35	57	84	1,247	1,672	
B32 Bronchitis ..	500-502	7	9	3	4	3	10	21	38	247	342	
B33 Ulcer of stomach and duodenum ..	540, 541	..	..	1	1	6	11	15	14	124	172
B34 Appendicitis ..	550-553	1	3	2	4	2	1	3	5	25	46	
B35 Intestinal obstruction and hernia ..	560, 561, 570	28	..	1	3	2	6	8	27	186	261	
B36 Gastritis, duodenitis, enteritis and colitis, except diarrhoea of the newborn ..	543, 571, 572	32	27	3	1	3	4	11	20	133	234	
B37 Cirrhosis of liver ..	581	1	..	2	2	3	19	51	43	66	187	
B38 Nephritis and nephrosis ..	590-594	1	1	5	8	14	51	53	63	162	358	
B40 Complications of pregnancy, childbirth and the puerperium ..	{ 640-652, 670-689 }	..	..	..	12	29	34	..	..	..	75
B41 Congenital malformations ..	750-759	385	48	27	17	5	14	15	14	20	545	
B42 Birth injuries, post-natal asphyxia and atelectasis ..	760-762	470	1	..	..	..	..	..	..	..	471
B43 Infections of the newborn ..	763-768	55	..	..	..	..	..	..	..	..	55
B44 Other diseases peculiar to early infancy, and immaturity unqualified ..	769-776	538	..	..	..	..	..	..	..	..	538
B45 Senility without mention of psychosis, ill-defined and unknown causes ..	780-795	5	1	2	3	4	4	14	6	331	370	
General arteriosclerosis ..	450	..	..	..	..	..	1	7	30	d 1,315	1,353
B46 Other diseases of circulatory system ..	451-468	..	..	..	8	12	15	31	51	297	414
Other diseases of respiratory system ..	{ 470-475, 510-527 }	21	13	5	3	5	7	17	23	177	271	
All other diseases ..	Residual	51	37	57	58	72	156	295	355	1,297	2,378	
BE47 Motor vehicle accidents ..	E810-E835	7	40	81	165	58	60	83	71	188	753	
BE48 All other accidents ..	E800-E802, E840-E962	52	90	43	31	27	57	81	70	(d) 669	1,120	
BE49 Suicide and self-inflicted injury ..	E963, E970-E979	..	..	4	43	68	121	143	84	(d) 86	549
BE50 Homicide and operations of war ..	E964, E965, E980-E999	..	10	11	9	11	14	8	1	4	68	
All causes ..	..	1,859	414	374	501	562	1,473	3,000	5,166	f 30,999	44,348

(a) No female deaths were recorded in the following categories in 1964: B4, Typhoid fever (040); B5, Cholera (043); B7, Scarlet fever and streptococcal sore throat (050, 051); B8, Diphtheria (055); B11, Plague (058); B12, Acute poliomyelitis (080); B13, Smallpox (084); B15, Typhus and other rickettsial diseases (100-108); B16, Malaria (110-117); (b) 030-039, 041, 042, 044, 049, 052-054, 059-074, 081-083, 086-096, 120-138. (c) All causes, 140-205, not shown above. (d) Includes 1, age 'not stated'. (e) Includes 2, age 'not stated'. (f) Includes 8, age 'not stated'.

C. DEATHS, BY CAUSE OF DEATH AND SEX NUMBERS AND RATES, AUSTRALIA, 1964

ABBREVIATED LIST OF 50 CAUSES (BASED ON THE SEVENTH REVISION OF THE
INTERNATIONAL LIST)

Cause of death	Detailed list numbers	Number of deaths			Rate per 1,000,000 of mean population	Percentage of total deaths	
		Males	Females	Persons			
B 1 Tuberculosis of respiratory system	001-008	307	81	388	35	0.39	
B 2 Tuberculosis, other forms	010-019	13	12	25	2	0.02	
B 3 Syphilis and its sequelae	020-029	54	18	72	6	0.07	
B 4 Typhoid fever	040	..	..	..	..	..
B 5 Cholera	043	..	..	..	..	..
B 6 Dysentery, all forms	045-048	7	5	12	1	0.01	
B 7 Scarlet fever and streptococcal sore throat	050, 051	..	..	..	..	..
B 8 Diphtheria	055	1	..	1	(a)	0.00	
B 9 Whooping cough	056	1	3	4	(a)	0.00	
B10 Meningococcal infections	057	20	9	29	3	0.03	
B11 Plague	058	..	..	..	..	..
B12 Acute poliomyelitis	080	..	..	..	..	..
B13 Smallpox	084	..	..	..	..	..
B14 Measles	085	8	6	14	1	0.01	
B15 Typhus and other rickettsial diseases	100-108	..	..	..	..	..
B16 Malaria	110-117	..	..	..	..	..
B17 All other diseases classified as infective and parasitic	(b)	144	132	276	25	0.28	
B18 {	Malignant neoplasms of—						
	Digestive organs and peritoneum	150-159	2,842	2,486	5,328	478	5.30
	Lung	162, 163	2,028	297	2,325	209	2.31
	Breast	170	11	1,353	1,364	123	1.36
	Genital organs	171-179	934	1,034	1,968	177	1.96
	Urinary organs	180, 181	491	254	745	67	0.74
	Leukaemia and aleukaemia	204	382	292	674	61	0.67
B19 {	Other malignant and lymphatic neoplasms	(c)	1,619	1,143	2,762	248	2.75
	Benign and unspecified neoplasms	210-239	80	110	190	17	0.19
	Diabetes mellitus	260	587	888	1,475	132	1.47
	Anaemias	290-293	118	161	279	25	0.28
	Vascular lesions affecting central nervous system	330-334	5,512	7,610	13,122	1,178	13.04
	Non-meningococcal meningitis	340	59	35	94	8	0.09
	Rheumatic fever	400-402	11	12	23	2	0.02
B25 Chronic rheumatic heart disease	410-416	340	433	773	69	0.77	
B26 {	Arteriosclerotic heart disease	420	16,869	10,061	26,930	2,418	26.77
	Degenerative heart disease	421, 422	2,338	2,605	4,943	444	4.91
B27 Other diseases of heart	430-434	1,663	1,651	3,314	298	3.29	
B28 Hypertension with heart disease	440-443	611	882	1,493	134	1.48	
B29 Hypertension without mention of heart	444-447	409	398	807	72	0.80	
B30 Influenza	480-483	157	145	302	27	0.30	
B31 Pneumonia	490-493	2,050	1,672	3,722	334	3.70	
B32 Bronchitis	500-502	1,895	342	2,237	201	2.22	
B33 Ulcer of stomach and duodenum	540, 541	479	172	651	58	0.65	
B34 Appendicitis	550-553	39	46	85	8	0.08	
B35 Intestinal obstruction and hernia	560, 561, 570	267	261	528	47	0.53	
B36 Gastritis, duodenitis, enteritis and colitis, except diarrhoea of the newborn	543, 571, 572	226	234	460	41	0.46	
B37 Cirrhosis of liver	581	359	187	546	49	0.54	
B38 Nephritis and nephrosis	590-594	523	358	881	79	0.88	
B39 Hyperplasia of prostate	610	370	..	370	33	0.37	
B40 Complications of pregnancy, child-birth and the puerperium	{ 640-652 } { 670-689 }	..	75	75	7	0.07	
B41 Congenital malformations	750-759	667	545	1,212	109	1.21	
B42 Birth injuries, post-natal asphyxia and atelectasis	760-762 763-768	662 78	471 55	1,133 133	102 12	1.13 0.13	
B43 Infections of the newborn	769-776	733	538	1,271	114	1.26	
B44 Other diseases peculiar to early infancy, and immaturity unqualified	780-795	248	370	618	56	0.62	
B45 {	Senility without mention of psychosis, ill-defined and unknown causes	450	1,129	1,353	2,482	223	2.47
	General arteriosclerosis	451-468	719	414	1,133	102	1.13
	Other diseases of circulatory system	{ 470-475 } { 510-527 }	696	271	967	87	0.96
B46 {	Other diseases of respiratory system	Residual	2,211	2,378	4,589	412	4.56
BE47 Motor vehicle accidents	E810-E835	2,208	753	2,961	266	2.94	
BE48 All other accidents	F800-E802 E840-E962	1,890	1,120	3,010	270	2.99	
BE49 Suicide and self-inflicted injury	E963, E970-E979	1,071	549	1,620	146	1.61	
BE50 Homicide and operations of war	E964, E965 E980-E999	110	68	178	16	0.18	
All causes	..	56,246	44,348	100,594	9,032	100.00	

(a) Less than 0.5.

(b) 030-039, 041, 042, 044, 049, 052-054, 059-074, 081-083, 086-096, 120-138.

(c) 140-148, 160, 161, 164, 165, 190-203, 205.

Deaths from principal causes

In the preceding tables, particulars have been given for each of the causes of death comprising the Abbreviated Classification according to the Seventh Revision of the International List. Certain important causes are treated in detail hereunder. The Abbreviated Classification numbers used in tables A to C (pages 259-62) are indicated in parentheses for each cause or group of causes.

All forms of tuberculosis (B1, B2). In comparing any of the figures for 1950 and subsequent years with those for 1949 and earlier years, consideration should be given to the effect of the change in basis from the Fifth to the Sixth Revision of the International List. This was discussed in Year Book No. 39, page 626. The following table shows the age groups of males and females who were classified as dying from tuberculosis in 1964, together with figures for 1931, 1941, 1951 and 1961.

DEATHS FROM TUBERCULOSIS (ALL FORMS), BY AGE GROUP AND SEX AUSTRALIA, 1931 TO 1964

Age group (years)	Males					Females				
	1931	1941	1951	1961	1964	1931	1941	1951	1961	1964
0-14	90	63	23	5	1	81	54	35	1	1
15-29	294	162	46	2	2	487	275	68	..	3
30-44	585	428	135	25	17	422	319	142	20	16
45-64	674	793	570	128	113	252	251	126	41	37
65 and over	193	279	306	175	186	89	110	86	50	36
Not stated . . . .	..	..	..	..	1	..	..	1	..	..
Total	1,836	1,725	1,080	335	320	1,331	1,009	458	112	93

The reduction in mortality from tuberculosis is shown by the decline in the crude death rate from tubercular diseases, which fell from 49 per 100,000 of mean population in 1931 to 18 in 1951, and to 4 in 1964. The reductions in the younger age groups are much greater, as can be seen from the table above. In making these comparisons, consideration of the effect of the change in basis from the Fifth to the Sixth Revision of the International List (*see above*) is particularly important.

Of the more populous countries, those with lowest death rates from tuberculosis per 100,000 of population are: Netherlands, 2.1; New Zealand, 3.7; Denmark, 3.9; Australia, 4.0; Canada, 4.0; Israel (Jewish population), 4.1; and United States of America, 4.9. Rates for selected countries in each continent are:

Africa—South Africa (white population), 7.1; United Arab Republic, 21.6.

North America—Dominican Republic, 15.6; Mexico, 26.1; Guatemala, 31.4.

South America—Argentina, 19.9; Peru, 50.2; Brazil, 82.3.

Asia—Japan, 24.3; India, 82.6; Philippines, 79.7.

Europe—England and Wales, 6.3; Scotland, 9.4; Italy, 15.7; France, 18.3; Poland, 41.1.

Malignant neoplasms, including neoplasms of lymphatic and haematopoietic tissues (B18.) Deaths classified under this heading according to the Sixth and Seventh Revisions of the International List (used in Australia for deaths registered since 1950) are not directly comparable in total with those on the Fifth Revision basis (*see Year Book No. 39, p. 628*).

Tables showing the seat of disease in conjunction with age and conjugal condition of the persons dying from malignant neoplasms in 1964 are included in *Causes of Death*, Bulletin No. 2. A summary regarding seat of disease for 1964 is given below.

DEATHS FROM MALIGNANT NEOPLASMS AND NEOPLASMS OF LYMPHATIC AND HAEMATOPOIETIC TISSUES, BY SEAT OF DISEASE AND SEX: AUSTRALIA, 1964

Seat of disease	Males	Females	Persons
Malignant neoplasms—			
Buccal cavity and pharynx	180	99	279
Digestive organs and peritoneum—			
Oesophagus	206	110	316
Stomach	949	630	1,579
Small intestine	20	25	45
Large intestine	697	937	1,634
Other	970	784	1,754
Respiratory system	2,174	334	2,508
Breast	11	1,353	1,364
Uterus . . . . .	..	560	560
Other female genital organs . . . . .	..	474	474
Male genital organs	934	..	934
Urinary organs	491	254	745
Skin	246	147	393
Other and unspecified organs	618	550	1,168
<i>Total, malignant neoplasms</i>	<i>7,496</i>	<i>6,257</i>	<i>13,753</i>
Neoplasms of lymphatic and haematopoietic tissues—			
Lymphosarcoma and reticulosarcoma	216	170	386
Hodgkin's disease	96	42	138
Other forms of lymphoma (reticulosis)	30	31	61
Multiple myeloma (plasmocytoma)	81	67	148
Leukaemia and aleukaemia	382	292	674
Mycosis fungoides	6	..	6
<i>Total, neoplasms of lymphatic and haematopoietic tissues</i>	<i>811</i>	<i>602</i>	<i>1,413</i>
Grand total	8,307	6,859	15,166

The ages of males and females who died from malignant neoplasms in 1964 are given below, together with figures for 1931, 1941, 1951 and 1961. The increase in the number of deaths from malignant neoplasms in the years since 1931 is due principally to the increase in the number of people in the higher age groups, at which ages the risks of cancer are much greater. While the total population increased by about 72 per cent between 1931 and 1964, the number of people aged 55 years and over increased by about 113 per cent. The increase in the number of deaths in the lower age groups from 1951 is due partly to the inclusion of neoplasms of lymphatic and haematopoietic tissues, and it is probable also that part of the increased number of deaths from cancer recorded in recent years has been due to improved diagnosis and certification on the part of the medical profession.

**DEATHS FROM MALIGNANT NEOPLASMS(a), BY AGE GROUP AND SEX
AUSTRALIA, 1931 TO 1964**

Age group (years)	Males					Females				
	1931	1941	1951 (a)	1961 (a)	1964 (a)	1931	1941	1951 (a)	1961 (a)	1964 (a)
Under 15	25	21	91	130	150	23	25	71	114	114
15-29	43	49	103	109	122	38	45	76	84	112
30-44	196	176	275	380	413	326	344	387	481	494
45-54	410	465	584	823	895	548	685	692	847	925
55-64	868	983	1,334	1,699	2,038	744	926	1,180	1,207	1,340
65 and over	1,942	2,561	3,128	4,239	4,686	1,426	2,198	2,698	3,575	3,873
Not stated . . . . .	..	..	..	..	3	..	..	..	1	1
Total	3,484	4,255	5,515	7,380	8,307	3,105	4,223	5,104	6,309	6,859

(a) Includes neoplasms of lymphatic and haematopoietic tissues.

The death rates from malignant neoplasms have continued to rise over recent years. The rates are crude death rates representing the number of deaths from malignant neoplasms per 100,000 of mean population and do not take account of changes in the age constitution of the population, and to a substantial extent they reflect the increasing age of the population rather than the true change in mortality from malignant neoplasms (*see* previous paragraph). In 1931 the rate for Australia was 101 (males, 105; females, 97); in 1941 it was 119 (males, 119; females, 120); and in 1951 it had risen to 126 (males, 130; females, 122). Figures for 1961 gave a rate of 130 (males, 139; females, 121), and for 1964 a rate of 136 (males, 148; females, 124).

Death rates from malignant neoplasms per 100,000 of mean population for Australia and for various other countries are as follows: Brazil, 94; Poland, 104; Japan, 106; Israel (Jewish population), 108; South Africa (white population), 111; Canada, 132; Australia, 136; United States of America, 151; Italy, 155; Netherlands, 178; France, 203; England and Wales, 217; Scotland, 224. The rates are for the latest available year in each case.

Diseases of the heart (B25 to B28). The number of deaths classified to diseases of the heart in 1964 was 37,453 (21,821 males and 15,632 females). This class is the largest among causes of death, the rate having increased from 112 per 100,000 of mean population in 1911-15 to 336 in 1964. The increase in the number of deaths recorded from heart diseases has been particularly pronounced during the past twenty years. The rapid increase in mortality is partly a reflection of the ageing of the population, but the figures have been influenced mainly by improved diagnosis and certification by medical practitioners.

The death rates from heart diseases for various years from 1931 were as follows:—1931, 159 (males, 178; females, 142); 1941, 269 (males, 306; females, 231); 1951, 314 (males, 367; females, 259); 1961, 304 (males, 356; females, 250); and 1964, 336 (males, 389; females, 283). Deaths from heart diseases in 1964 represented 37 per cent of the total deaths.

Puerperal causes (B40). It was shown in Year Book No. 39, page 634, that the changes introduced with the Sixth Revision of the International List did not significantly affect the comparability of the total number of deaths from puerperal causes. The Seventh Revision, introduced in 1958, did not affect comparability. The death rate from these causes has fallen rapidly during recent years and in 1964 the rate was 0.3 per 1,000 live births, compared with a rate of 6 per 1,000 in 1936. The 75 deaths in 1964 correspond to a death rate of 1.36 per 100,000 females. The death rate may be expressed in other terms by stating that for every 3,055 babies born alive in 1964 one woman died from puerperal causes. The death rate per 1,000 live births from puerperal causes in various countries for the latest available year is as follows: Sweden, 0.1; Denmark and Norway, 0.2; Netherlands, United Kingdom, and Australia, 0.3; New Zealand, United States, Canada and France, 0.4; Finland, 0.5; Switzerland, 0.6; Italy and Japan, 1.0; and Venezuela, 1.1.

Causes of infant mortality. *See* paragraphs devoted to causes of infant deaths on pages 257-8.

Accidents, poisonings and violence (BE47 to BE50). Deaths in this class are classified according to external cause and not according to nature of injury. The classification provides sub-groups for accidents, including adverse reactions to prophylactic inoculations, therapeutic misadventures and late effects of accidental injury; suicide; homicide and injuries purposely inflicted by other persons; and injury resulting from operations of war, including delayed effects.

The following table, showing the death rates in the main sub-groups per 100,000 of mean population, indicates that the death rate from violence is between two and three times as great for males as for females. The low level of the rates and proportions for the years 1941-45 is due largely to the exclusion of deaths of defence personnel from accidents, suicide and homicide though the rates have been based on total mean population (including defence personnel). A further contributing factor is the decrease during this period in the number of automobile accidents. From July 1947 deaths of defence personnel from accidents, etc. have again been included.

**ACCIDENTS, POISONINGS AND VIOLENCE: DEATH RATES(a), BY SEX
AUSTRALIA, 1936 TO 1964**

AUSTRALIA, 1936 TO 1964															
Period	Death rate from—												All violence, proportion per 10,000 deaths		
	Accidents(b)			Suicide			Homicide(c)			Total violence					
	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.
1936-40	86	28	58	17	5	11	2	1	1	105	34	70	979	399	724
1941-45	67	26	46	11	4	8	1	1	1	79	31	55	730	348	558
1946-50	76	27	51	14	5	10	1	1	1	91	33	62	844	383	640
1951-55	82	31	57	15	5	10	2	1	1	99	37	68	964	453	740
1956-60	75	32	53	16	6	11	2	1	2	93	39	66	957	495	754
1960	72	33	52	15	6	11	2	1	2	89	40	65	934	518	751
1961	72	30	52	17	7	12	2	1	1	91	38	65	966	514	769
1962	71	33	52	19	9	14	2	1	2	92	43	68	952	559	780
1963	69	29	49	21	11	16	2	1	1	92	41	66	944	529	762
1964	73	34	53	19	10	15	2	1	2	94	45	70	939	561	772

(a) Number of deaths per 100,000 of mean population. (b) Includes 'open verdict'. (c) Includes late effects of injuries due to operations of war.

In 1964 the total number of deaths from *accidental causes* (BE47, BE48) was 5,971 (4,098 males and 1,873 females). Over half of the accidental deaths were the result of transport accidents. Of these, the numbers attributable to the major causes, and the percentages of the total accidental deaths in each case, were as follows: Motor vehicle traffic accidents, 2,894 (48.47 per cent); motor vehicle non-traffic accidents, 67 (1.12 per cent); other road vehicle accidents, 48 (0.80 per cent); railway accidents, 87 (1.46 per cent); water transport accidents, 113 (1.89 per cent); aircraft accidents, 28 (0.47 per cent); a total of 3,237 (54.21 per cent). Other important causes were accidental falls, 1,023 (17.13 per cent); accidental drowning, 409 (6.85 per cent); and accidents caused by fire and explosion of combustible material, 193 (3.23 per cent).

Deaths from *suicide* (BE49) in 1964 numbered 1,620 (males, 1,071; females, 549). Poisoning, other than by gases, was used in 683 cases (42.16 per cent of total deaths by suicide). Other important modes adopted, together with the numbers and relevant percentages, were as follows: firearms and explosives, 345 (21.30 per cent); poisoning by gases, 249 (15.37 per cent); hanging or strangulation, 172 (10.62 per cent); submersion (drowning), 70 (4.32 per cent); other and unspecified modes, 101 (6.23 per cent). Of the 1,071 males who committed suicide, 321 (29.97 per cent) used firearms or explosives. For females the most common mode was poisoning (other than by gases). This was used in 371 cases (67.58 per cent). The following table shows the age of persons who committed suicide in 1964.

**PERSONS WHO COMMITTED SUICIDE, BY AGE GROUP AND SEX
AUSTRALIA, 1964**

Age group (years)	Males	Females	Persons	Age group (years)	Males	Females	Persons
10-14	2	4	6	60-64	83	37	120
15-19	29	14	43	65-69	59	39	98
20-24	65	29	94	70-74	43	30	73
25-29	70	32	102	75-79	30	8	38
30-34	106	36	142	80-84	14	6	20
35-39	105	55	160	85 and over	9	3	12
40-44	133	66	199	Not stated	1	..	1
45-49	110	79	189				
50-54	122	64	186				
55-59	90	47	137	Total deaths	1,071	549	1,620

Of the 178 deaths recorded in 1964 from *homicide and operations of war (BE50)* there were 168 deaths from homicide and injury purposely inflicted by other persons (not in war), of which assault by firearms and explosives caused 64, assault by cutting and piercing instruments 17, and assault by other means 87. Deaths from injury resulting from the operations of war numbered 10 but all were deaths from late effects of such injuries.

Age at death and average issue of deceased married males and females

Demography, Bulletin No. 82, contains a number of tables showing, in combination with the issue, the age at marriage, age at death and occupation of married (including widowed or divorced) persons who died in Australia in 1964. Deaths of married males in 1964 numbered 43,828, and those of married females, 35,980. The tables which follow deal, however, with only 43,163 males and 35,733 females, the information regarding issue in the remaining 912 cases being incomplete. The total number of children in the families of the 43,163 males was 125,754 and of the 35,733 females, 111,221. The average number of children is shown for various age groups in the following table.

DECEASED MARRIED(a) MALES AND FEMALES, BY AGE AT DEATH AND AVERAGE ISSUE: AUSTRALIA, 1931 TO 1964

Age at death (years)	Average issue									
	Males					Females				
	1931	1941	1951	1961	1964	1931	1941	1951	1961	1964
Under 20	0.75	..	0.43	0.33	0.67	0.66	0.79	0.83	0.75	0.56
20-24	0.81	0.73	0.96	0.93	0.76	1.13	0.95	0.86	1.12	1.08
25-29	1.33	1.12	1.29	1.56	1.77	1.81	1.45	1.61	2.00	1.93
30-34	1.79	1.76	1.79	2.23	2.34	2.34	1.91	1.98	2.37	2.68
35-39	2.13	2.11	2.12	2.37	2.48	2.89	2.30	2.49	2.47	2.58
40-44	2.77	2.49	2.30	2.44	2.59	3.29	2.77	2.39	2.44	2.45
45-49	3.10	2.68	2.51	2.49	2.59	3.55	2.93	2.59	2.38	2.54
50-54	3.46	2.96	2.56	2.46	2.55	3.60	3.29	2.76	2.43	2.42
55-59	3.69	3.28	2.71	2.45	2.56	4.01	3.55	3.03	2.50	2.45
60-64	4.02	3.55	3.07	2.58	2.56	4.21	3.79	3.29	2.69	2.63
65-69	4.41	3.73	3.25	2.77	2.69	4.82	4.01	3.63	3.04	2.83
70-74	5.06	4.17	3.58	3.00	2.87	5.41	4.29	3.64	3.30	3.00
75-79	5.65	4.56	3.83	3.31	3.15	6.02	4.85	3.96	3.44	3.28
80-84	6.17	4.93	4.30	3.62	3.45	6.26	5.39	4.19	3.58	3.52
85-89	6.59	5.70	4.63	3.94	3.69	6.57	5.85	4.68	3.78	3.70
90-94	6.94	6.57	5.06	4.39	4.07	6.73	6.11	5.08	3.99	3.85
95-99	6.69	7.04	5.78	4.76	4.51	7.10	6.34	5.76	4.51	4.22
100 and over	7.00	8.69	5.71	5.38	3.82	8.20	6.73	7.72	4.63	4.94
Age not stated	5.00	..	8.00	..	3.00	5.00	..	5.50	5.00	..
All ages	4.44	3.91	3.39	2.98	2.91	4.72	4.22	3.68	3.22	3.11

(a) Includes widowed or divorced.

Age at marriage of deceased males and females, and issue

The following table shows the average issue of males and females according to the age at marriage of the deceased parent.

DECEASED MALES AND FEMALES, BY AGE AT MARRIAGE AND AVERAGE ISSUE AUSTRALIA, 1931 TO 1964

Age at marriage (years)(a)	Average issue									
	Males					Females				
	1931	1941	1951	1961	1964	1931	1941	1951	1961	1964
Under 15 . . . . .	..	..	..	..	..	6.36	7.80	4.88	4.45	5.00
15-19	6.15	5.40	4.63	4.11	4.17	6.79	6.10	5.41	4.74	4.62
20-24	5.56	4.89	4.23	3.65	3.59	5.23	4.80	4.28	3.77	3.56
25-29	4.70	4.21	3.65	3.16	3.06	3.79	3.51	3.14	2.85	2.78
30-34	3.96	3.41	3.00	2.64	2.61	2.42	2.35	2.23	1.98	1.97
35-39	3.14	2.80	2.45	2.11	1.99	1.40	1.26	1.16	1.14	1.05
40-44	2.36	2.01	1.69	1.49	1.44	0.39	0.35	0.36	0.31	0.32
45-49	1.96	1.52	1.33	1.11	0.89	0.12	0.01	0.07	0.06	0.07
50-54	1.60	1.05	0.80	0.71	0.51	..	..	..	..	..
55-59	0.95	0.79	0.49	0.25	0.46	..	..	..	..	..
60-64	0.63	0.29	0.24	0.25	0.13	..	..	..	..	..
65 and over	0.18	0.01	0.29	0.24	.01	..	..	..	..	..
Age not stated	3.64	2.95	2.81	2.40	2.33	3.96	2.45	3.17	2.44	2.47
All ages	4.44	3.91	3.39	2.98	2.91	4.72	4.22	3.68	3.22	3.11

(a) In cases where the deceased was married more than once this represents age at first marriage.

Vital statistics of external territories

The following table shows, for the year 1964, the number of marriages, births and deaths registered in the external territories under the control of Australia. More detailed information will be found in a series of tables in *Demography*, Bulletin No. 82.

EXTERNAL TERRITORIES: VITAL STATISTICS, 1964

Territory	Marriages	Births	Deaths
Christmas Islands(a)	6	69	7
Cocos (Keeling) Islands(a) . . . . .	..	18	4
Norfolk Island(a)	9	11	6
Papua(b)	94	402	28
Trust Territory of New Guinea(b)	94	617	56
Trust Territory of Nauru(b)	3	12	1

(a) Total population. (b) Non-indigenous population only.

International vital statistics

In the following table vital statistics rates for selected countries are shown. Crude marriage, birth, and death rates represent the number of 'events' reported for the year stated per 1,000 of the population. Infant mortality rates are the number of deaths which occurred under one year of age per 1,000 live births. The true death rates (reciprocals of the expectation of life at birth) have been computed from the life tables for the respective countries as published in the United Nations *Demographic Yearbook*, 1964 (see explanation of true death rates, pages 248-9).

In many instances the rates shown in the following table are estimates and the results of sample surveys only. Reference should be made to the detailed comments contained in the United Nations *Demographic Yearbook*, 1964 (see particularly Technical Notes on Statistical Tables and footnotes to the tables). The countries are arranged in the same order as in the table on pages 227-8 of the Population chapter.

VITAL STATISTICS RATES: SELECTED COUNTRIES—LATEST AVAILABLE YEAR
(Source: United Nations *Demographic Yearbook*, 1964)

Country	Year	Rates(a)				Year	True death rates (b)	
		Mar- riage	Birth	Death	Infant mor- tality		Male	Female
Africa—								
South Africa—								
Asian population	1963	13.7	46.3	7.6	44.7	1950-52	17.9	18.3
Coloured population	1963	5.8	46.3	15.3	126.9	1950-52	22.3	20.9
White population	1964	(c) 9.1	24.1	9.0	(c) 29.0	1950-52	15.5	14.3
Congo, Democratic Re- public of(d)	1955-57	(e)	43	20	104	1950-52	26.6	25.0
Morocco	1962	(e)	46.1	18.7	149	1960	20.2	
Upper Volta	1960-61	(e)	49.1	30.5	174.3	1960-61	31.2	32.2
Southern Rhodesia(d)	1964	8.6	(f) 48	(f) 14	54.9	1962	20.0	
Ivory Coast	1961	(e)	56.1	33.3	(g) 138	1956-58	28.6	
Zambia(d)	1962	5.3	(h) 51	(c) 19	(i) 26.3	1963	25.0	
Guinea	1955	(e)	62	40	220	1954-55	{ 27.9 Urban 32.8 Rural	
Senegal	1960-61	(e)	43.3	(c) 19.1	92.9	1957	27.0	
Dahomey	1961	(e)	54	26	110	1961	27.0	
Central African Republic	1960	(e)	48	30	200	1959-66	28.6	
North America—								
United States of America	1964	9.0	21.2	9.4	(c) 25.2	1963	15.0	13.6
Mexico	1964	7.1	45.2	9.8	(c) 67.7	1956	18.1	17.3
Canada	1964	7.4	23.8	7.6	(c) 26.3	1960-62	14.6	13.5
Haiti	1964	(e)	44.4	21.6	171.6	1950	30.7	
Guatemala	1963	3.7	47.7	17.2	92.8	1949-51	22.8	23.0
El Salvador	1964	3.9	46.8	10.4	65.5	1951-61	22.4	21.1
Puerto Rico	1964	9.3	30.3	7.1	51.3	1959-61	14.9	13.9
Jamaica	1964	4.7	40.1	7.7	39.2	1950-52	17.9	17.0
Costa Rica	1964	5.6	47.1	8.9	(c) 77.6	1949-51	18.3	17.5
South America—								
Brazil(j)	1955-60	(e)	43-47	(f) 8.2	(k) 70.0	1940-50	25.4	22.0
Argentina	1964	6.5	21.5	8.0	60.7	1947	17.6	16.3
Colombia(j)	1963	5.6	44.1	11.7	88.2	1950-52	22.6	21.8
Peru(j)	1961	4.2	31.1	11.2	(c) 94.8		(e)	(e)
Chile	1963	6.9	33.7	12.0	111.0	1952	20.1	18.6
Venezuela(j)	1963	5.2	43.4	7.2	47.9		(e)	(e)
Bolivia(j)	1963	3.8	21.7	6.0	(l) 86.0	1949-51	20.1	20.1
Asia—								
China (mainland)	1957	(e)	34	11	(e)		(e)	(e)
India(m)	1962	(e)	20.9	8.8	139	1951-60	23.9	24.7
Indonesia	1962	10.6	43	21.4	74.7	..	(e)	(e)
Pakistan	1962	(e)	43-46	16-17	(e)		(e)	(e)
Japan	1964	9.9	17.7	6.9	20.4	1963	14.9	13.8
Philippines(m)	1963	5.0	26.0	7.1	72.8	1946-49	20.5	18.7
Thailand	1962	(c) 2.2	34.8	7.9	44.7	1947-48	20.5	19.3
Turkey in Asia	1960	7.6	(n) 43	10.9	(f) 165	1950-51	21.7	19.8
Korea, Republic of	1961	12.0	(k) 40.6	(k) 12.2	(k) 58.2	1955-60	19.6	18.6
Burma	1964	(e)	39.7	17.8	128.1	1954	24.5	22.8
China (Taiwan)	1964	7.7	34.5	5.7	(c) 26.4	1959-60	16.3	15.2
Malaya	1963	(g) 1.0	39.4	8.9	56.7	1956-58	17.9	17.2
Cambodia	1959	(e)	41.4	19.7	127	1958-59	22.6	23.1
Hong Kong	1964	(e)	29.4	4.9	26.4	1961	15.7	14.2
Israel	1964	7.8	25.7	6.3	26.2	(o) 1963	14.1	13.7
Europe—								
Germany, Federal Re- public of	1964	8.7	18.2	11.0	(c) 26.9	1960-62	15.0	13.8
United Kingdom of Great Britain and Northern Ireland	1964	7.5	18.7	11.3	20.7	1961-63	14.7	13.5
England and Wales	1964	(c) 7.5	18.4	11.3	20.0	1961-63	14.8	13.8
Northern Ireland	1964	7.3	23.5	10.6	26.5	1961-63	15.1	13.9
Scotland	1964	7.7	20.1	11.7	24.1	1961-63	15.2	14.3
Italy	1964	8.2	20.0	9.6	35.5	1954-57	15.2	14.3
France	1964	7.2	18.1	10.7	23.4	1963	14.9	13.5
Spain	1964	7.4	22.2	8.7	37.9	1960	14.9	13.9

See footnotes on following page.

VITAL STATISTICS RATES: SELECTED COUNTRIES—LATEST AVAILABLE
YEAR—*continued*

Country	Year	Rates(a)				Year	True death rates (b)	
		Mar- riage	Birth	Death	Infant mor- tality		Male	Female
Europe—continued								
Poland	1964	7.4	18.1	7.6	47.8	1960-61	15.4	14.2
Yugoslavia	1964	8.6	20.8	9.4	77.5	1960-61	16.1	15.3
Romania	1964	9.0	15.2	8.0	(c) 55.2	1961	15.6	14.8
Czechoslovakia	1964	7.9	17.1	9.6	21.2	1962	14.9	13.7
Netherlands	1964	8.5	20.7	7.7	(c) 15.8	1956-60	14.0	13.4
Hungary	1964	8.7	13.0	9.9	39.8	1959-60	15.3	14.4
Belgium	1963	6.7	17.1	12.6	27.2	1946-49	16.1	14.9
Portugal	1964	8.0	23.7	10.2	(c) 73.1	1959-62	16.5	15.1
Bulgaria	1964	8.3	16.1	7.9	32.2	1960-62	14.7	14.0
Sweden	1964	7.5	16.0	10.0	13.6	1962	14.0	13.3
Austria	1964	8.0	18.5	12.3	29.9	1959-61	15.2	13.8
Switzerland	1964	7.3	18.8	9.2	(c) 20.5	1959-61	14.4	13.4
Denmark	1964	8.4	17.6	9.9	18.7	1956-60	14.2	13.6
Finland	1964	7.5	17.6	9.3	16.9	1956-60	15.4	14.0
Norway	1964	6.5	17.9	10.0	16.7	1951-55	14.1	13.4
Ireland	1964	(c) 5.5	22.5	11.4	26.8	1950-52	15.5	14.9
Oceania—								
Australia	1964	7.7	20.6	9.0	19.1	1953-55	14.9	13.7
New Zealand	1964	8.0	24.1	8.8	19.1	1955-57	14.7	13.7
U.S.S.R.—								
Union of Soviet Socialist Republics	1962	10.0	(c) 21.2	(c) 7.2	(c) 30.9	1960-61	15.4	13.7

(a) Crude marriage, birth and death rates, i.e., number of marriages, births and deaths per 1,000 of population. Infant mortality—number of deaths of children under one year of age per 1,000 live births. (b) Number of deaths per 1,000 males and 1,000 females respectively in stationary population (see explanation on pp. 248-9). (c) 1963. (d) African population only. (e) Not available. (f) 1962. (g) 1957. (h) 1961. (i) 1964. (j) Estimates specially prepared and published by UN Economic Commission for Latin America. (k) 1960. (l) 1955-60. (m) Derived from census results by United Nations Statistical Office using reverse survival methods. (n) 1955. (o) Jewish population.

CHAPTER 10

HOUSING AND BUILDING

On pages 271-8 of this chapter details are given of the *characteristics of dwellings as obtained from censuses*, pages 278-88 contain a *summary of building activities*, pages 288-300 outline *government activities in the field of housing*, and pages 300-7 relate to *financial arrangements associated with the erection or purchase of homes*.

Further information on dwellings obtained from censuses is available in the detailed tables of the 1961 census and earlier censuses and in the mimeographed statements of the 1961 census (see the chapter Miscellaneous of this Year Book.) More detailed information on building activity is contained in the annual bulletin *Building and Construction*, and the *Quarterly Bulletin of Building Statistics*, and current information is obtainable also in the *Quarterly Summary of Australian Statistics*, the *Monthly Review of Business Statistics*, the *Digest of Current Economic Statistics*, and the mimeographed statements *Building Statistics: Number of New Houses and Flats* (quarterly), and *Building Approvals* (monthly). Details for particular States are available from publications issued regularly by the Deputy Commonwealth Statisticians.

Commonwealth Government activities relate in the main to the provision of moneys to State Governments under Commonwealth-State Housing Agreements, to the assistance of ex-service personnel in the erection and purchase of homes, to assistance to young married couples under the Home Savings Grant Act, to the operation of the Housing Loans Insurance Corporation, and to the provision of homes in the Territories. Further details of activities of the Commonwealth and State Housing Authorities are shown in the reports issued by these authorities.

Census dwellings

At each census of the population, in addition to the questions relating to personal particulars, there have been a number of questions relating to dwellings. A 'dwelling' is defined as any habitation occupied by a household group living together as a domestic unit, whether comprising the whole or only part of a building, and includes, *in addition to houses and flats*, a great variety of dwellings ranging from a single-roomed shack to a multi-roomed hotel or institution. All statistics in this section are exclusive of particulars of dwellings occupied solely by full-blood Aborigines.

Number of dwellings

The following table shows the number of occupied and unoccupied dwellings in Australia at each census from 1911 to 1961. Occupied dwellings are classified into 'private' and 'other than private' dwellings (see page 273 for definitions of 'private' and 'other than private' dwellings). Unoccupied dwellings include dwellings whose occupants are temporarily absent, holiday homes, and other temporarily vacant dwellings (see page 278 for full explanation of the term 'unoccupied').

DWELLINGS: AUSTRALIA, CENSUSES, 1911 TO 1961

Census	Occupied			Unoccupied
	Private	Other than private	Total	
1911	894,389	29,070	923,459	33,473
1921	1,107,010	46,275	1,153,285	51,163
1933	1,509,671	37,705	1,547,376	68,772
1947	1,873,623	34,272	1,907,895	47,041
1954	2,343,421	36,932	2,380,353	112,594
1961	2,781,945	35,325	2,817,270	194,114

The following table shows the number of occupied and unoccupied dwellings in the urban and rural areas of Australia at the census of 30 June 1961. (For definitions of 'urban' and 'rural' see page 195).

DWELLINGS, BY DIVISION OF STATE: AUSTRALIA, CENSUS, 30 JUNE 1961

Division	Occupied				Unoccupied	
	Private	Other than private	Total		Number	Proportion of total
			Number	Proportion of total		
				Per cent		Per cent
Urban—						
Metropolitan . . .	1,607,392	18,304	1,625,696	57.70	59,096	30.44
Other	706,535	9,208	715,743	25.41	58,577	30.18
Rural	468,018	7,813	475,831	16.89	76,441	39.38
Total	2,781,945	35,325	2,817,270	100.00	194,114	100.00

The total numbers of occupied and unoccupied dwellings in each State and Territory at the censuses of 1954 and 1961 were as follows.

**DWELLINGS: STATES AND TERRITORIES, CENSUSES
1954 AND 1961**

State or Territory	Census 30 June 1954		Census 30 June 1961	
	Occupied	Un-occupied	Occupied	Un-occupied
New South Wales . . .	912,877	42,831	1,061,609	72,432
Victoria	660,690	27,491	790,529	47,389
Queensland	339,328	21,473	398,233	33,969
South Australia . . .	215,301	8,524	261,908	17,061
Western Australia . .	162,823	6,614	194,317	13,705
Tasmania	78,789	5,288	91,258	8,582
Northern Territory . .	3,427	47	5,479	179
Australian Capital Territory	7,118	326	13,937	797
Australia	2,380,353	112,594	2,817,270	194,114

Class of dwelling

The following table shows the numbers of the various classes of occupied dwellings in the metropolitan urban, other urban, and rural areas of Australia at the censuses of 1954 and 1961. The boundaries of the metropolitan urban and other divisions of State differ from census to census, and consequently accurate comparison cannot be made between figures for corresponding divisions (see page 195).

Private dwellings are classified into the following four categories:

Private house—includes houses, sheds, huts, garages, etc., used for dwelling purposes, and shared private houses for which only one householder's schedule was received;

Share of private house—portion of a shared private house which is occupied separately and for which portion a separate householder's schedule was received;

Flat—part of a house or other building which can be completely closed off and which has its own cooking and bathing facilities;

Other private dwelling—includes private dwellings such as rooms, apartments, etc., which are parts of buildings but are not self-contained units.

Other than private dwellings include hotels; motels; boarding houses, lodging houses and hostels; educational, religious and charitable institutions; hospitals; defence and penal establishments; police and fire stations; clubs; staff barracks and quarters, etc.

OCCUPIED DWELLINGS, BY CLASS OF DWELLING AND DIVISION OF STATE: AUSTRALIA, CENSUSES, 1954 AND 1961

Class of occupied dwelling	Census, 30 June 1954				Census, 30 June 1961				Increase 1954-61
	Urban(a)		Rural (a)	Total, Aus- tralia	Urban(a)		Rural (a)	Total, Aus- tralia	
	Metro- politan	Other			Metro- politan	Other			
Private house(b)—									
House	1,067,674	506,128	433,069	2,006,871	1,324,627	630,072	438,470	2,393,169	386,298
Shed, hut, etc.	14,259	12,276	22,613	49,148	10,740	11,338	19,919	41,997	-7,151
Total	1,081,933	518,404	455,682	2,056,019	1,335,367	641,410	458,389	2,435,166	379,147
Share of private house(c)	77,344	22,747	7,125	107,216	59,727	15,248	4,575	79,550	-27,666
Flat(d)	104,603	20,784	2,033	127,420	169,934	43,134	4,518	217,586	90,166
Other	45,308	6,744	714	52,766	42,364	6,743	536	49,643	-3,123
Total private dwellings	1,309,188	568,679	465,554	2,343,421	1,607,392	706,535	468,018	2,781,945	438,524
Caretaker's quarters	998	264	194	1,456	(e)	(e)	(e)	(e)	-1,456
Licensed hotel	1,720	2,457	2,015	6,192	1,759	2,447	1,877	6,083	-109
Motel	14,110	4,120	1,041	19,271	61	301	137	499	-280
Boarding house, etc.	523	488	251	1,262	13,572	4,094	826	18,492	-577
Educational institution(f)	523	488	251	1,262	308	275	102	685	-577
Religious institution (non-educational)(f)	142	31	24	197	559	422	201	1,182	985
Hospital	559	517	353	1,429	638	488	318	1,444	15
Charitable institution (other than hospital)	299	107	104	510	317	117	78	512	2
Other	852	1,091	4,672	6,615	1,090	1,064	4,274	6,428	-187
Total dwellings other than private	19,203	9,075	8,654	36,932	18,304	9,208	7,813	35,325	-1,607
Total occupied dwellings	1,328,391	577,754	474,208	2,380,353	1,625,696	715,743	475,831	2,817,270	436,917
Total occupied dwellings per square mile	592.77	123.32	0.16	0.80	661.12	173.77	0.16	0.95	0.15

(a) See text on page 195 regarding comparability as between censuses. (b) Includes shared private houses for which only one householder's schedule was received. (c) Portion of a shared private house which is occupied separately and for which portion a separate householder's schedule was received. (d) Prior to 1961 single self-contained dwellings attached to, or situated above, offices, shops, etc., were classified as private houses irrespective of the description stated in the householder's schedule. In 1961 such dwellings, if described as self-contained flats, were classified as flats. (e) Included with private dwellings. (f) Certain institutions previously classified as 'Educational' were in 1961 classified as 'Religious'.

Minus sign (-) denotes decrease.

Population according to class of dwelling, etc.

The following table shows the number of the various classes of occupied dwellings at the censuses of 1954 and 1961, together with the number of inmates therein.

OCCUPIED DWELLINGS AND INMATES, BY CLASS OF DWELLING: AUSTRALIA
CENSUSES, 1954 AND 1961

	Census, 30 June 1954			Census, 30 June 1961		
	Number of dwellings	Inmates		Number of dwellings	Inmates	
		Number	Proportion of total		Number	Proportion of total
Private house(a)—			per cent			per cent
House	2,006,871	7,448,978	82.89	2,393,169	8,881,128	84.51
Shed, hut, etc.	49,148	134,187	1.49	41,997	116,458	1.11
Total	2,056,019	7,583,165	84.38	2,435,166	8,997,586	85.62
Share of private house(b)	107,216	290,579	3.23	79,550	224,066	2.13
Flat(c)	127,420	329,265	3.67	217,586	552,596	5.26
Other	52,766	111,353	1.24	49,643	96,246	0.92
Total, private dwellings(d)	2,343,421	8,314,362	92.52	2,781,945	9,870,494	93.93
Dwellings other than private(d)	36,932	618,743	6.89	35,325	596,412	5.68
Total occupied dwellings	2,380,353	8,933,105	99.41	2,817,270	10,466,906	99.61
Campers out . . . . .	..	30,056	0.33	..	15,994	0.15
Migratory(e) . . . . .	..	23,369	0.26	..	25,286	0.24
Total population . . . . .	..	8,986,530	100.00	..	10,508,186	100.00

(a) Includes shared private houses for which only one householder's schedule was received. (b) Portion of a shared private house which is occupied separately and for which portion a separate householder's schedule was received. (c) See footnote (d) to table on page 273. (d) See footnote (e) to table on page 273. (e) Shipping, railway and air travellers.

Occupied private dwellings

The tables on pages 274-7 show occupied private dwellings classified according to material of outer walls; number of rooms; number of inmates; nature of occupancy; date of building; and facilities. Previous Year Books contain additional detail concerning these classifications.

OCCUPIED PRIVATE DWELLINGS, BY MATERIAL OF OUTER WALLS AND DIVISION OF STATE: AUSTRALIA, CENSUSES, 1954 AND 1961

Material of outer walls	Census, 30 June 1954				Census, 30 June 1961				Increase, 1954-61
	Urban(a)		Rural (a)	Total Aus- tralia	Urban(a)		Rural (a)	Total Aus- tralia	
	Metro- politan	Other			Metro- politan	Other			
Brick	674,165	86,254	25,089	785,508	807,311	113,392	32,291	952,994	167,486
Stone	35,907	18,049	33,604	87,566	32,828	19,919	30,325	83,072	-4,488
Concrete	24,299	13,497	13,639	51,435	40,779	19,111	15,455	75,345	23,910
Wood	422,010	341,145	276,584	1,039,739	507,775	386,555	258,257	1,152,587	112,848
Iron, tin	7,387	19,652	31,177	58,216	4,556	17,235	24,870	46,661	-11,555
Fibro-cement, Calico, canvas, hessian	140,542	84,835	71,176	296,553	208,271	146,003	97,996	452,270	155,717
Other	426	1,843	5,446	7,715	105	585	1,918	2,608	-5,107
Not stated	3,644	2,086	7,750	14,080	4,328	2,958	5,841	13,127	-953
	808	718	1,089	2,615	1,439	777	1,065	3,281	666
Total	1,309,188	568,679	465,554	2,343,421	1,607,392	706,535	468,018	2,781,945	438,524

(a) See text on page 195 regarding comparability as between censuses.

Minus sign (-) denotes decrease.

The following table gives particulars of occupied private dwellings by number of rooms. For a dissection of these figures into metropolitan urban, other urban, and rural areas *see* page 359 of Year Book No. 50.

OCCUPIED PRIVATE DWELLINGS, BY NUMBER OF ROOMS AND CLASS OF DWELLING: AUSTRALIA, CENSUSES, 1954 AND 1961

Number of rooms(a) per dwelling	Census, 30 June 1954					Census, 30 June 1961				
	Private house (b)	Share of private house (c)	Flat (d)	Other	Total private dwellings	Private house (b)	Share of private house (c)	Flat (d)	Other	Total private dwellings
1	24,052	12,129	769	16,336	53,286	17,303	6,941	2,282	13,306	39,832
2	45,117	23,761	7,333	18,675	94,886	28,607	17,606	20,635	19,644	86,492
3	87,137	25,716	27,270	9,955	150,078	70,945	21,280	53,585	9,732	155,542
4	380,138	19,284	49,548	4,250	453,220	387,737	16,524	77,531	3,536	485,328
5	692,044	12,728	27,701	1,520	733,993	903,227	11,906	39,914	1,224	956,271
6	534,420	7,663	10,752	687	553,522	656,348	2,168	15,723	245	674,484
7	181,312	2,788	2,525	218	186,843	231,841	609	4,471	97	237,018
8	64,092	1,130	806	100	66,128	80,911	230	1,674	45	82,860
9	22,430	341	244	47	23,062	28,070	70	572	28	28,740
10 and over	20,808	163	98	13	21,087	24,196	97	160	38	24,491
Not stated	4,469	1,513	374	960	7,316	5,981	2,119	1,039	1,748	10,887
Total private dwellings	2,056,019	107,216	127,420	52,766	2,343,421	2,435,166	79,550	217,586	49,643	2,781,945
Average number of rooms(a) per private dwelling	5.26	3.38	4.14	2.22	5.04	5.39	3.26	3.97	2.20	5.16

(a) Includes kitchen and permanently enclosed sleep-out but does not include bathroom, pantry, laundry or storehouse. (b) Includes houses, sheds, huts, etc., and shared private houses for which only one householder's schedule was received. (c) Portion of a shared private house which is occupied separately and for which portion a separate householder's schedule was received. (d) See footnote (d) to table on page 273.

The following table gives particulars of occupied private dwellings by number of inmates. For a dissection of these figures into metropolitan urban, other urban, and rural areas *see* page 361 of Year Book No. 50.

OCCUPIED PRIVATE DWELLINGS BY NUMBER OF INMATES AND CLASS OF DWELLING: AUSTRALIA, CENSUSES, 1954 AND 1961

Number of inmates per dwelling	Census, 30 June 1954					Census, 30 June 1961				
	Private house (a)	Share of private house (b)	Flat (c)	Other	Total private dwellings	Private house (a)	Share of private house (b)	Flat (c)	Other	Total private dwellings
1	147,308	22,082	22,507	21,191	213,088	198,150	17,215	46,890	23,105	285,360
2	444,179	35,626	49,303	16,678	545,786	537,599	23,572	82,194	15,128	658,493
3	435,679	22,920	29,351	7,904	495,854	465,895	16,176	43,051	6,267	531,389
4	446,687	14,258	16,468	4,185	481,598	512,229	11,371	26,638	3,053	553,291
5	291,706	6,673	6,335	1,578	306,292	356,874	5,801	11,571	1,264	375,510
6	154,691	3,171	2,263	654	160,779	196,328	2,940	4,476	499	204,243
7	72,955	1,429	796	294	75,474	91,405	1,367	1,779	180	94,731
8	35,243	704	256	160	36,363	44,096	765	683	91	45,635
9	14,268	207	92	67	14,634	17,279	204	173	30	17,686
10 and over	13,303	146	49	55	13,553	15,311	139	131	26	15,607
Total private dwellings	2,056,019	107,216	127,420	52,766	2,343,421	2,435,166	79,550	217,586	49,643	2,781,945
Total inmates	7,583,165	290,579	329,265	111,353	8,314,362	8,997,586	224,066	552,596	96,246	9,870,494
Average number of inmates per private dwelling	3.69	2.71	2.58	2.11	3.55	3.69	2.82	2.54	1.94	3.55

(a) Includes houses, sheds, huts, etc., and shared private houses for which only one householder's schedule was received. (b) Portion of a shared private house which is occupied separately and for which portion a separate householder's schedule was received. (c) See footnote (d) to table on page 273.

The following table gives particulars of the nature of occupancy of occupied private dwellings. For a dissection of these figures into metropolitan urban, other urban and rural areas see page 363 of Year Book No. 50.

**OCCUPIED PRIVATE DWELLINGS, BY NATURE OF OCCUPANCY
AND CLASS OF DWELLING: AUSTRALIA, CENSUS, 1954 AND 1961**

Nature of occupancy	Census, 30 June 1954					Census, 30 June 1961				
	Private house (a)	Share of private house (b)	Flat (c)	Other	Total private dwellings	Private house (a)	Share of private house (b)	Flat (c)	Other	Total private dwellings
Owner	1,074,696	28,772	15,974	2,372	1,121,814	1,260,221	22,572	35,998	2,817	1,321,608
Purchaser by instalments	343,625	7,099	1,816	553	353,093	607,444	8,175	7,529	866	624,014
Tenant (Governmental housing)(d)	91,968	560	4,935	1,913	99,376	102,087	488	13,925	579	117,079
Tenant	481,813	67,964	103,142	46,935	699,854	400,489	45,943	155,110	44,195	645,737
Caretaker	25,307	772	888	460	27,427	25,982	659	2,813	468	29,922
Other methods of occupancy	27,285	869	435	241	28,830	27,327	675	1,523	244	29,769
Not stated	11,325	1,180	230	292	13,027	11,616	1,038	688	474	13,816
Total private dwellings	2,056,019	107,216	127,420	52,766	2,343,421	2,435,166	79,550	217,586	49,643	2,781,945

(a) Includes houses, sheds, huts, etc., and shared private houses for which only one householder's schedule was received. (b) Portion of a shared private house which is occupied separately and for which portion a separate householder's schedule was received. (c) See footnote (d) to table on page 273. (d) At the 1954 Census, figures were compiled from the answers furnished in response to the instruction on the householder's schedule 'Tenant paying rent to a Government Authority to write 'Tenant (G)'. At the 1961 Census, householders were instructed on the schedule to write 'Tenant (G)' if they paid rent to the Governmental Housing Authority in their State or Territory.

The numbers of occupied private dwellings in Australia at the census of 30 June 1961, classified according to date of building, are shown below. This information was derived from replies of occupants of dwellings at 30 June 1961. For a number of reasons, the figures shown on the first line of the table do not agree with the number of dwellings by class recorded at the census of 30 June 1954, e.g., demolitions, conversion from one class of dwelling to another and errors of memory regarding date of building. Also, the figures are not precisely comparable with 1954 data because of changes in classification of dwellings adopted at the 1961 census, as indicated in footnotes (d) and (e) to the table on page 273.

OCCUPIED PRIVATE DWELLINGS, BY DATE OF BUILDING AND CLASS OF DWELLING AND DIVISION OF STATE: AUSTRALIA, CENSUS, 30 JUNE 1961

Date of building	Class of dwelling				Division			Total Australia
	Private house (a)	Share of private house	Flat	Other	Urban		Rural	
					Metro-politan	Other		
<i>Before 1 July 1954</i>	<i>1,861,262</i>	<i>68,823</i>	<i>168,615</i>	<i>44,358</i>	<i>1,231,462</i>	<i>537,953</i>	<i>373,643</i>	<i>2,143,058</i>
<i>After 30 June 1954—</i>								
1954 (July—Dec.)	30,398	397	1,121	94	19,116	8,375	4,519	32,010
1955	80,293	975	3,375	194	49,571	22,374	12,892	84,837
1956	73,095	999	3,937	213	46,215	20,398	11,631	78,244
1957	68,340	939	3,596	351	43,353	18,953	10,920	73,226
1958	78,573	1,143	5,603	381	51,970	22,203	11,527	85,700
1959	81,110	1,220	7,657	366	54,747	24,002	11,604	90,353
1960	82,968	1,231	11,117	234	57,188	25,705	12,657	95,550
1961 (Jan.—June)	30,618	367	4,124	130	19,943	9,466	5,830	35,239
Not stated(b)	18,131	730	2,841	491	12,484	6,085	3,624	22,193
<i>Total, after 30 June 1954</i>	<i>543,526</i>	<i>8,001</i>	<i>43,371</i>	<i>2,454</i>	<i>354,587</i>	<i>157,561</i>	<i>85,204</i>	<i>597,352</i>
<i>Other not stated</i>	<i>30,378</i>	<i>2,726</i>	<i>5,600</i>	<i>2,831</i>	<i>21,343</i>	<i>11,021</i>	<i>9,171</i>	<i>41,535</i>
<i>Grand total</i>	<i>2,435,166</i>	<i>79,550</i>	<i>217,586</i>	<i>49,643</i>	<i>1,607,392</i>	<i>706,535</i>	<i>468,018</i>	<i>2,781,945</i>

(a) Includes houses, sheds, huts, etc., and shared private houses for which only one householder's schedule was received. (b) After 30 June 1954, but year not stated.

At the 1961 census a question was asked regarding the facilities gas, electricity, and television. Similar information was not compiled for the 1954 census, but a summary of information obtained at the 1947 census was published on page 571 of Year Book No. 38.

OCCUPIED PRIVATE DWELLINGS, BY FACILITIES AND CLASS OF DWELLING AND DIVISION OF STATE: AUSTRALIA, CENSUS, 30 JUNE 1961

DWELLING AND DIVISION OF STATE AUSTRALIA, 1955								
Facilities	Class of dwelling				Division			Total, Australia
	Private house (a)	Share of private house	Flat	Other	Urban		Rural	
					Metro-politan	Other		
Gas or electricity—								
With gas only	5,386	105	171	103	1,578	614	3,573	5,765
With electricity only	1,322,300	28,580	63,378	9,565	546,588	517,038	360,197	1,423,823
With gas and electricity	1,068,763	49,769	153,231	39,428	1,052,980	177,974	20,237	1,251,191
Without gas or electricity	87,839	773	277	163	3,239	8,665	77,148	89,052
Not stated	10,878	323	529	384	3,007	2,244	6,863	12,114
Total	2,435,166	79,550	217,586	49,643	1,607,392	706,535	468,018	2,781,945
With television set(b)	1,139,578	30,126	97,226	11,732	1,038,837	168,875	70,950	1,278,662

(a) Includes houses, sheds, huts, etc., and shared private houses for which only one householder's schedule was received. (b) So stated in census schedules.

Tenanted private dwellings—weekly rent

Information tabulated from census results concerning rents was restricted to the actual rent paid per week by tenants for unfurnished private dwellings. Particulars of rents shown in the following tables are therefore on an *unfurnished* basis. Dwellings shown as rent 'Not stated' include those whose rents were shown on householders' schedules on a *furnished* basis, and those whose rents were not applicable (e.g., for shop and dwelling combined). In this section information on 'tenanted private dwellings' *excludes particulars of dwellings occupied by 'Tenants (Governmental Housing)' in each State*, i.e. those householders who at the 1954 Census furnished answers in response to the instruction on the census householder's schedule 'Tenant paying rent to a Government Authority to write 'Tenant (G)' and those householders who at the 1961 Census furnished answers in response to the instruction on the census householder's schedule 'Tenant paying rent to the Governmental Housing Authority in their State to write 'Tenant (G)'. For the Australian Capital Territory and the Northern Territory particulars of all tenanted private dwellings are included.

TENANTED PRIVATE DWELLINGS, BY WEEKLY RENT (UNFURNISHED) AND CLASS OF DWELLING: AUSTRALIA, CENSUSES, 1954 AND 1961

Weekly rent (unfurnished)	Census, 30 June 1954(a)					Census, 30 June 1961(a)				
	Private house (b)	Share of private house (c)	Flat (d)	Other	Total tenanted private dwellings	Private house (b)	Share of private house (c)	Flat (d)	Other	Total tenanted private dwellings
Under \$2	71,092	4,960	1,191	1,573	78,816	24,925	665	1,043	426	27,059
\$2 and under \$3	116,836	9,155	6,559	3,019	135,569	41,731	1,649	2,798	860	47,038
\$3 " " \$4	94,619	8,971	17,187	2,955	123,732	41,920	1,942	5,424	1,268	50,554
\$4 " " \$5	50,869	5,827	18,180	1,815	76,691	44,659	2,662	9,482	1,431	58,234
\$5 " " \$6	22,487	2,963	11,874	1,061	38,385	32,137	2,011	10,598	1,068	45,814
\$6 " " \$7	14,770	1,830	6,980	686	24,266	31,174	2,776	10,239	1,158	45,347
\$7 " " \$8	6,584	685	3,561	324	11,154	18,189	1,787	7,147	810	27,933
\$8 " " \$9	3,751	481	2,370	182	6,784	15,590	1,824	6,669	718	24,801
\$9 " " \$10	1,279	137	1,352	70	2,838	7,469	915	4,205	433	13,022
\$10 and over	3,636	316	3,523	177	7,652	43,482	4,050	38,306	1,596	87,434
Not stated(e)	100,253	32,756	30,607	35,087	198,703	106,808	25,791	60,608	34,439	227,646
Total tenanted private dwellings	486,176	68,081	103,384	46,949	704,590	408,084	46,072	156,519	44,207	654,882
Average weekly rent (unfurnished) per private dwelling	\$ 3.22	\$ 3.42	\$ 5.05	\$ 3.62	\$ 3.50	\$ 5.77	\$ 6.62	\$ 9.47	\$ 6.25	\$ 6.65

(a) These figures exclude dwellings occupied by 'Tenants (Governmental housing)' except those in the Northern Territory and the Australian Capital Territory. (b) Includes houses, sheds, huts, etc., and shared private houses for which only one householder's schedule was received. (c) Portion of a shared private house which is occupied separately and for which portion a separate householder's schedule was received. (d) See footnote (d) to table on page 273. (e) Includes tenanted dwellings which were rent-free, those rented on a furnished basis, and those for which the rents were not applicable (e.g., for shop and dwelling combined).

For similar particulars to the above for metropolitan urban, other urban, and rural areas and for further detail see Year Book No. 50, pages 365-7.

Unoccupied dwellings

The following table classifies unoccupied dwellings according to the reasons given by census collectors as to why the dwellings were unoccupied at the census date. Unoccupied dwellings include vacant dwellings available for sale or renting; dwellings such as 'week-ender', 'holiday home', 'second home', 'seasonal workers' quarters', which were not occupied on the night of the census; dwellings normally occupied, but whose usual occupants were temporarily absent on the night of the census; newly completed dwellings whose owners or tenants had not entered into occupation on the night of the census; dwellings described as 'to be demolished', 'condemned', 'deceased estate', 'exhibition home', etc.; and buildings constructed as dwellings, but used for non-dwelling purposes on the night of the census. The total number of unoccupied dwellings shown for any area must not, therefore, be read as representing the number of vacant houses and flats available for sale or renting.

UNOCCUPIED DWELLINGS, BY REASON FOR BEING UNOCCUPIED
AUSTRALIA, CENSUS, 30 JUNE 1961

Reason for being unoccupied	Urban		Rural	Total, Australia	
	Metro-politan	Other		Number	Per cent
For sale or for renting . . .	16,159	10,920	7,189	34,268	17.65
Holiday home, week-ender, seasonal workers' quarters . .	5,814	20,975	36,567	63,356	32.64
Occupants temporarily absent . .	22,896	16,196	14,984	54,076	27.86
To be demolished, condemned . .	1,828	912	1,800	4,540	2.34
Other and not stated . . .	12,399	9,574	15,901	37,874	19.51
Total	59,096	58,577	76,441	194,114	100.00

Building

Statistics of building approved

Statistics of building approvals have been compiled from (a) permits issued by local government authorities in the areas subject to building control by these authorities, and (b) contracts let or work commenced and day labour projects authorized by governmental authorities. *They relate only to approvals for buildings as distinct from the construction of roads, railways, bridges, earthworks, water storage, etc.* Values shown represent the estimated cost when completed (excluding cost of land) of new buildings and alterations and additions to existing buildings. Additions of \$10,000 and over are included with new buildings in all States except New South Wales, where they are included in 'alterations and additions'. These statistics are available from the year 1953-54.

Statistics of building commenced, completed and under construction

These relate to building by private contractors, government authorities and owner-builders. The following outlines the scope of the statistics: (a) *only the erection of new buildings as distinct from the construction of roads, railways, bridges, earthworks, water storages, etc., is covered*; (b) major new additions to existing buildings are included as new buildings (for New South Wales, major alterations also are included as new building); (c) minor additions, alterations, renovations and repairs are excluded because of the difficulty of obtaining details of this work; (d) temporary dwellings, sheds, huts, etc., are excluded; (e) figures for houses exclude flats and dwellings attached to other new buildings (the value of dwellings attached to other new buildings is included with the value of buildings to which they are attached); figures for flats include 'home units'; (f) imported prefabricated houses are included; (g) details obtained from government authorities and building contractors refer to all areas, whereas details for owner-builders cover only areas subject to building control by local government authorities.

The following definitions of terms used in this section are necessary for interpretation of the data presented.

Private or Government ownership. A building is classified as 'private' or 'government' according to ownership at date of commencement. Thus 'government' includes buildings erected for Commonwealth and State Governments, semi-governmental and local government authorities, either by contractor or by day-labour, whether these buildings are for their own use or for rental or sale after completion. Houses erected for particular persons under government sponsored home building schemes or with government financial assistance are classified as 'private'.

Owner-built. An 'owner-built' house is one actually erected or being erected by the owner or under the owner's direction without the services of a contractor who is responsible for the whole job.

Contract-built. Includes the operations of all building contractors and government authorities which undertake the erection of new buildings.

Commenced. A building is regarded as having been commenced when work on foundations has begun. Owing to the difficulty of defining the exact point that this represents in building operations, classifications made by informants may not be entirely uniform.

Completed. A building is regarded as having been completed when the contractor has fulfilled the terms of the contract. As with commencements, the classifications made may not be entirely uniform.

Under construction. A building is regarded as being under construction if it has been commenced but not completed, whether or not work on the building is actively proceeding.

Values. All values shown exclude the value of land and represent the estimated value of buildings on completion.

Values of work done. The values of work done during the period represent the estimated value of work actually carried out on buildings during the period. For any building the sum of these values obtained during its construction equals the value of the building on completion. Data relating to the value of work done on owner-built houses are not collected. However, the figures shown for the value of work done include a component relating to owner-built houses, calculated on the basis of the figures collected for the value of owner-built houses commenced, completed and under construction.

Type of building. Classification is according to the function a building is intended to serve. A building which is ancillary to other buildings or forms part of a group of related buildings is classified according to the function of the group as a whole.

Persons working. Figures relate to persons working on the jobs of contractors who undertake the erection of new buildings and of government authorities which erect new buildings on their own account. They include persons actually working on alterations, additions, repairs and maintenance when these jobs are undertaken by such contractors and authorities. Contractors are asked to give details of all persons working on their jobs on a specified day, including working principals, men working as or for sub-contractors and men temporarily laid off on account of weather. Because of the intermittent employment of various types of sub-contractors on any particular job, it is sometimes difficult for contractors and authorities to provide precise particulars of the number of sub-contractors and the number of employees of sub-contractors working on their jobs on the specified day. This factor may cause some estimation by persons completing returns and some degree of understatement in figures shown in tables. On the other hand, because of frequent movement between jobs of some types of tradesmen (such as electricians) who may work on several jobs on the one day, a small element of duplication may occur. The figures exclude persons working on owner-built houses, and employees of builders who undertake only alterations, additions, repairs and maintenance.

New houses approved, commenced, completed and under construction

The next table provides a summary for 1964-65 of the number of new houses approved, commenced, completed and under construction in each State and Territory. For a graph showing the number of new houses commenced, completed and under construction for the period 1955-56 to 1964-65, see plate 26.

NEW HOUSES: NUMBER, STATES AND TERRITORIES, 1964-65

Particulars	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Approved	28,925	22,508	11,729	9,808	7,570	2,669	774	2,043	86,026
Commenced	26,624	21,767	11,657	11,220	7,467	2,546	605	1,910	83,796
Completed	26,764	22,821	11,546	11,050	7,445	2,579	473	1,806	84,484
Under construction at end of year	12,851	11,858	3,027	5,809	2,945	1,600	491	1,055	39,636

The following table shows the number of new houses approved in each State or Territory, according to private and government ownership, during the years 1960-61 to 1964-65.

**NEW HOUSES APPROVED, BY OWNERSHIP
NUMBER, STATES AND TERRITORIES, 1960-61 TO 1964-65**

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
PRIVATE									
1960-61	24,410	16,509	8,776	5,614	4,421	1,860	142	639	62,371
1961-62	22,558	16,829	8,630	6,373	4,424	1,910	175	842	61,741
1962-63	23,412	19,894	8,347	7,438	4,738	1,921	156	943	66,849
1963-64	24,926	22,417	9,333	8,025	5,571	2,064	130	995	73,461
1964-65	24,685	20,301	10,269	7,289	5,512	2,062	203	1,189	71,510
GOVERNMENT									
1960-61	3,844	1,923	1,583	4,332	1,264	413	216	878	14,453
1961-62	4,335	1,285	1,302	1,603	1,867	617	229	590	11,828
1962-63	3,980	1,925	1,197	2,537	1,655	550	240	741	12,825
1963-64	5,243	2,301	1,643	4,085	1,876	584	333	569	16,634
1964-65	4,240	2,207	1,460	2,519	2,058	607	571	854	14,516
TOTAL									
1960-61	28,254	18,432	10,359	9,946	5,685	2,273	358	1,517	76,824
1961-62	26,893	18,114	9,932	7,976	6,291	2,527	404	1,432	73,569
1962-63	27,392	21,819	9,544	9,975	6,393	2,471	396	1,684	79,674
1963-64	30,169	24,718	10,976	12,110	7,447	2,648	463	1,564	90,095
1964-65	28,925	22,508	11,729	9,808	7,570	2,669	774	2,043	86,026

The number of new houses commenced in each State and Territory by contractors and owner-builders during the years 1960-61 to 1964-65 is shown in the following table.

NEW HOUSES COMMENCED, CONTRACT- OR OWNER-BUILT: NUMBER, STATES AND TERRITORIES, 1960-61 TO 1964-65

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T. (n)	A.C.T.	Aust.
CONTRACT-BUILT(b)									
1960-61	19,950	15,261	7,364	8,448	4,902	1,405	321	962	58,613
1961-62	18,764	15,292	7,715	8,136	5,491	1,643	369	1,388	58,798
1962-63	20,667	17,632	7,949	9,130	5,443	1,641	326	1,461	64,249
1963-64	23,545	20,873	8,917	11,014	6,448	1,756	393	1,561	74,509
1964-65	22,764	18,900	10,202	10,639	6,537	1,791	557	1,793	73,183
OWNER-BUILT									
1960-61	7,704	3,256	1,834	820	791	843	94	215	15,557
1961-62	6,594	3,247	1,451	593	825	832	58	202	13,802
1962-63	4,478	3,179	1,058	480	779	801	42	131	10,968
1963-64	4,412	2,775	1,264	550	872	794	35	92	10,794
1964-65	3,860	2,867	1,455	581	930	755	48	117	10,613
TOTAL									
1960-61	27,654	18,517	9,198	9,268	5,693	2,248	415	1,177	74,170
1961-62	25,358	18,539	9,166	8,729	6,316	2,475	427	1,590	72,600
1962-63	25,145	20,811	9,027	9,610	6,222	2,442	368	1,592	75,217
1963-64	27,957	23,648	10,181	11,564	7,320	2,550	430	1,653	85,303
1964-65	26,624	21,767	11,657	11,220	7,467	2,546	605	1,910	83,796

(a) Includes flats for 1960-61.

(b) Includes operations of government authorities.

The following table shows the number of new houses completed in each State and Territory by contractors and owner-builders during the years 1960-61 to 1964-65.

NEW HOUSES COMPLETED, CONTRACT- OR OWNER-BUILT: NUMBER, STATES AND TERRITORIES, 1960-61 TO 1964-65

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T. (u)	A.C.T.	Aust.
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CONTRACT-BUILT(b)

1960-61	20,099	17,276	7,564	8,309	4,997	1,520	286	1,123	61,174
1961-62	18,593	14,982	7,648	8,302	5,009	1,574	335	1,298	57,741
1962-63	19,939	16,355	7,827	9,059	5,661	1,649	381	1,508	62,379
1963-64	21,658	19,358	8,681	9,884	6,342	1,615	262	1,601	69,401
1964-65	22,976	19,544	10,158	10,490	6,396	1,779	424	1,673	73,440

OWNER-BUILT

1960-61	9,679	4,818	1,827	1,067	976	967	117	150	19,601
1961-62	7,818	3,987	1,492	834	1,073	823	59	217	16,303
1962-63	5,652	3,973	1,192	587	932	855	51	175	13,417
1963-64	4,296	3,441	1,331	604	934	896	48	163	11,713
1964-65	3,788	3,277	1,388	560	1,049	800	49	133	11,044

TOTAL

1960-61	29,778	22,094	9,391	9,376	5,973	2,487	403	1,273	80,775
1961-62	26,411	18,969	9,140	9,136	6,082	2,397	394	1,515	74,044
1962-63	25,591	20,328	9,019	9,646	6,593	2,504	432	1,683	75,796
1963-64	25,954	22,799	10,012	10,488	7,276	2,511	310	1,764	81,114
1964-65	26,764	22,821	11,546	11,050	7,445	2,579	473	1,806	84,484

(a) Includes flats for 1960-61. (b) Includes operations of government authorities.

The number of new houses completed in each State and Territory during the years 1960-61 to 1964-65, according to private and government ownership, is shown in the following table.

NEW HOUSES COMPLETED, BY OWNERSHIP: NUMBER, STATES AND TERRITORIES, 1960-61 TO 1964-65

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T. (u)	A.C.T.	Aust.
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PRIVATE

1960-61	26,540	20,384	7,694	6,374	4,701	2,014	225	544	68,476
1961-62	22,241	17,066	7,393	6,013	4,678	1,850	142	703	60,086
1962-63	21,727	19,125	7,962	6,921	4,843	1,941	133	962	63,614
1963-64	22,174	21,129	8,375	7,795	5,330	1,957	129	1,028	67,917
1964-65	21,935	20,781	10,117	7,873	5,612	2,000	117	1,086	69,521

GOVERNMENT

1960-61	3,238	1,710	1,697	3,002	1,272	473	178	729	12,299
1961-62	4,170	1,903	1,747	3,123	1,404	547	252	812	13,958
1962-63	3,864	1,203	1,057	2,725	1,750	563	299	721	12,182
1963-64	3,780	1,670	1,637	2,693	1,946	554	181	736	13,197
1964-65	4,829	2,040	1,429	3,177	1,833	579	356	720	14,963

TOTAL

1960-61	29,778	22,094	9,391	9,376	5,973	2,487	403	1,273	80,775
1961-62	26,411	18,969	9,140	9,136	6,082	2,397	394	1,515	74,044
1962-63	25,591	20,328	9,019	9,646	6,593	2,504	432	1,683	75,796
1963-64	25,954	22,799	10,012	10,488	7,276	2,511	310	1,764	81,114
1964-65	26,764	22,821	11,546	11,050	7,445	2,579	473	1,806	84,484

(a) Includes flats for 1960-61.

The following table shows the number of new houses completed in each State and Territory during 1964-65, classified according to the material of their outer walls.

NEW HOUSES COMPLETED, BY MATERIAL OF OUTER WALLS: NUMBER, STATES AND TERRITORIES, 1964-65

Material of outer walls	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Brick, brick veneer, concrete and stone	11,774	17,835	2,947	10,438	5,871	1,352	268	1,800	52,285
Wood (weatherboard, etc.)	4,361	2,901	6,005	38	27	1,142	..	6	14,480
Fibro-cement	10,526	1,854	2,482	572	1,454	78	205	..	17,171
Other	103	231	112	2	93	7	..	..	548
Total	26,764	22,821	11,546	11,050	7,445	2,579	473	1,806	84,484

The following table shows the number of new houses completed in Australia during the years 1960-61 to 1964-65, classified according to the material of their outer walls.

NEW HOUSES(a) COMPLETED, BY MATERIAL OF OUTER WALLS: NUMBER, AUSTRALIA, 1960-61 TO 1964-65

Material of outer walls	1960-61	1961-62	1962-63	1963-64	1964-65
Brick, brick veneer, concrete and stone	35,786	34,990	40,194	47,754	52,285
Wood (weatherboard, etc.)	24,764	20,896	19,212	16,678	14,480
Fibro-cement	19,830	17,776	16,083	16,358	17,171
Other	395	382	307	324	548
Total	80,775	74,044	75,796	81,114	84,484

(a) Includes Northern Territory flats for 1960-61.

The number of new houses under construction at the end of each year 1960-61 to 1964-65 in each State and Territory is shown in the following table.

NEW HOUSES UNDER CONSTRUCTION: NUMBER, STATES AND TERRITORIES 1960-61 TO 1964-65

At end of year—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T. (a)	A.C.T.	Aust.
1960-61	12,487	12,010	2,713	5,006	3,016	1,578	274	1,078	38,162
1961-62	11,434	11,580	2,739	4,599	3,250	1,656	303	1,153	36,714
1962-63	10,983	12,063	2,747	4,563	2,879	1,594	239	1,062	36,135
1963-64	12,991	12,912	2,916	5,639	2,923	1,633	359	951	40,324
1964-65	12,851	11,858	3,027	5,809	2,945	1,600	491	1,055	39,636

(a) Includes flats for 1960-61.

New flats

The figures in the foregoing tables, except those for the Northern Territory for periods prior to 1961-62, do not include particulars of new flats. It should be noted: (a) that the figures here-under are additional to the numbers of houses shown in other tables, (b) that each flat is counted as a separate unit, and the numbers shown therefore relate to individual flats, (c) that new flats only are included, i.e., conversions of old buildings into flats are omitted, and (d) 'home units' are included as flats. For a graph showing the number of new flats commenced, completed and under construction for the period 1955-56 to 1964-65 see plate 27.

Approved, commenced, completed and under construction

The summary following shows the number of new flats approved, commenced, completed and under construction for the year 1964-65.

NEW FLATS: NUMBER, STATES AND TERRITORIES, 1964-65

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Approved . . .	17,989	10,400	3,144	2,526	1,795	252	165	494	36,765
Commenced . . .	15,583	10,054	2,428	2,158	1,730	251	148	561	32,913
Completed . . .	13,126	8,674	2,079	1,820	1,841	153	137	337	28,167
Under construction at end of year . . .	9,706	6,331	1,041	1,063	950	188	132	488	19,899

The following table shows the number of new flats approved in each State or Territory during the years 1960-61 to 1964-65, according to private and government ownership.

NEW FLATS APPROVED, BY OWNERSHIP
NUMBER, STATES AND TERRITORIES, 1960-61 TO 1964-65

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
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PRIVATE

1960-61 . . .	7,773	4,700	1,454	526	370	128	32	..	14,983
1961-62 . . .	4,418	2,447	793	479	592	117	43	..	8,889
1962-63 . . .	6,511	3,269	785	787	999	145	27	102	12,625
1963-64 . . .	12,210	6,446	1,539	1,634	1,830	163	65	177	24,064
1964-65 . . .	16,337	9,418	3,132	2,488	1,718	224	90	368	33,775

GOVERNMENT

1960-61 . . .	674	456	100	230	63	24	..	262	1,809
1961-62 . . .	1,329	844	27	81	..	..	24	28	2,333
1962-63 . . .	797	934	99	14	74	28	..	144	2,090
1963-64 . . .	1,105	878	68	..	..	2	84	128	2,265
1964-65 . . .	1,652	982	12	38	77	28	75	126	2,990

TOTAL

1960-61 . . .	8,447	5,156	1,554	756	433	152	32	262	16,792
1961-62 . . .	5,747	3,291	820	560	592	117	67	28	11,222
1962-63 . . .	7,308	4,203	884	801	1,073	173	27	246	14,715
1963-64 . . .	13,315	7,324	1,607	1,634	1,830	165	149	305	26,329
1964-65 . . .	17,989	10,400	3,144	2,526	1,795	252	165	494	36,765

The number of new flats commenced in each State or Territory during the years 1960-61 to 1964-65 is shown in the following table.

NEW FLATS COMMENCED: NUMBER, STATES AND TERRITORIES, 1960-61 TO 1964-65

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1960-61 . . .	7,578	4,672	1,153	571	358	129	(a)	258	14,719
1961-62 . . .	4,927	3,001	588	605	493	166	62	28	9,870
1962-63 . . .	6,730	3,662	699	683	876	125	14	263	13,052
1963-64 . . .	10,210	7,089	1,311	1,386	1,743	120	128	290	22,277
1964-65 . . .	15,583	10,054	2,428	2,158	1,730	251	148	561	32,913

(a) Included with houses for 1960-61.

The following table shows the number of new flats completed in each State and Territory during the years 1960-61 to 1964-65, according to private and government ownership.

NEW FLATS COMPLETED, BY OWNERSHIP
NUMBER, STATES AND TERRITORIES, 1960-61 TO 1964-65

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
PRIVATE									
1960-61 . .	6,244	3,575	1,198	590	401	123	(a)	35	12,166
1961-62 . .	4,750	3,450	829	473	241	138	2	13	9,896
1962-63 . .	5,037	2,864	684	545	642	91	33	33	9,929
1963-64 . .	6,894	3,515	920	907	1,221	156	26	114	13,753
1964-65 . .	12,150	7,884	1,946	1,775	1,826	131	53	191	25,956

GOVERNMENT									
1960-61 . .	375	608	14	297	39	52	(a)	139	1,524
1961-62 . .	1,188	620	99	120	24	16	..	256	2,323
1962-63 . .	716	908	96	141	..	6	26	129	2,022
1963-64 . .	882	755	29	82	74	8	..	36	1,866
1964-65 . .	976	790	133	45	15	22	84	146	2,211

TOTAL									
1960-61 . .	6,619	4,183	1,212	887	440	175	(a)	174	13,690
1961-62 . .	5,938	4,070	928	593	265	154	2	269	12,219
1962-63 . .	5,753	3,772	780	686	642	97	59	162	11,951
1963-64 . .	7,776	4,270	949	989	1,295	164	26	150	15,619
1964-65 . .	13,126	8,674	2,079	1,820	1,841	153	137	337	28,167

(a) Included with houses for 1960-61.

The number of new flats under construction at the end of each year 1960-61 to 1964-65 in each State and Territory is shown in the table below.

NEW FLATS UNDER CONSTRUCTION
NUMBER, STATES AND TERRITORIES, 1960-61 TO 1964-65

At end of year—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1960-61 . .	4,849	3,311	751	319	151	94	(a)	264	9,739
1961-62 . .	3,838	2,242	411	331	379	106	64	23	7,394
1962-63 . .	4,815	2,132	330	328	613	134	19	124	8,495
1963-64 . .	7,249	4,951	692	725	1,061	90	121	264	15,153
1964-65 . .	9,706	6,331	1,041	1,063	950	188	132	488	19,899

(a) Included with houses for 1960-61.

Value of new buildings approved, commenced, completed and under construction

The following table summarizes, for the years 1960-61 to 1964-65, the values of all new buildings approved, commenced, completed and under construction in each State and Territory.

NEW BUILDINGS: VALUE, STATES AND TERRITORIES, 1960-61 TO 1964-65
 (\$'000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
APPROVED									
1960-61 .	370,032	295,384	128,588	121,418	65,914	28,568	5,756	31,824	1,047,484
1961-62 .	371,696	278,622	112,376	100,120	72,822	35,864	7,458	37,368	1,016,326
1962-63 .	403,234	328,342	128,688	115,124	78,116	35,752	9,254	45,584	1,144,094
1963-64 .	469,384	392,928	167,242	157,148	115,720	32,538	10,988	43,376	1,389,324
1964-65 .	531,344	437,514	203,386	166,010	131,958	42,760	17,658	48,220	1,578,850
COMMENCED									
1960-61 .	427,474	310,752	115,640	115,846	66,564	28,280	8,868	30,614	1,104,038
1961-62 .	419,156	304,186	105,834	103,492	73,524	35,386	7,964	38,070	1,087,652
1962-63 .	436,668	316,482	124,652	111,716	81,918	34,612	8,246	40,620	1,154,914
1963-64 .	514,054	394,698	150,356	149,776	118,556	34,664	10,164	42,400	1,414,668
1964-65 .	594,378	419,864	201,704	168,988	122,056	42,040	13,140	54,224	1,616,394
COMPLETED									
1960-61 .	418,372	326,304	118,608	107,732	72,050	34,028	6,236	26,310	1,109,640
1961-62 .	416,086	296,350	110,108	104,630	68,072	33,454	7,006	31,516	1,067,222
1962-63 .	411,526	333,568	112,694	121,120	86,428	34,128	8,872	38,124	1,146,460
1963-64 .	471,680	334,830	133,018	118,302	92,868	33,976	7,962	40,164	1,232,800
1964-65 .	531,544	402,280	178,470	154,500	107,100	37,744	11,784	42,986	1,466,408
UNDER CONSTRUCTION AT END OF YEAR									
1960-61 .	315,864	244,374	59,922	83,454	41,844	25,928	6,820	36,160	814,366
1961-62 .	334,816	256,592	56,896	83,016	49,006	27,776	7,856	43,650	859,608
1962-63 .	365,276	243,910	69,994	75,732	45,372	28,412	7,354	48,762	884,812
1963-64 .	413,202	306,278	87,888	111,514	71,848	29,094	9,770	52,048	1,081,642
1964-65 .	485,184	327,310	113,222	130,890	88,436	33,366	11,254	66,686	1,256,348
VALUE OF WORK DONE DURING YEAR									
1960-61 .	443,134	326,804	116,280	106,596	67,930	33,830	7,422	28,948	1,130,944
1961-62 .	413,436	298,472	108,718	105,408	75,014	34,776	7,888	33,260	1,076,972
1962-63 .	426,376	316,650	115,440	116,020	81,586	34,136	7,844	42,626	1,140,678
1963-64 .	490,116	362,740	148,578	135,936	97,692	35,850	9,432	43,510	1,323,854
1964-65 .	569,752	413,496	186,234	160,364	122,976	38,356	11,778	53,860	1,556,816

The following table shows the value of all new buildings completed in each State and Territory during 1964-65, according to the type of building.

**NEW BUILDINGS COMPLETED, BY TYPE OF BUILDING: VALUE
STATES AND TERRITORIES, 1964-65
(\$'000)**

Type of building	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Houses—									
Brick, brick veneer, concrete and stone	119,604	154,908	28,612	77,326	47,094	11,746	2,420	19,818	461,528
Wood (weather-board, etc.)	31,660	18,712	42,842	368	148	7,158		60	100,948
Fibro-cement	59,434	10,340	14,454	3,242	9,700	266	2,038	..	99,474
Other	898	1,732	796	4	296	46			3,772
Total, houses	211,596	185,692	86,704	80,940	57,238	19,216	4,458	19,878	665,722
Flats	77,300	47,564	10,240	9,318	9,046	844	1,006	1,952	157,270
Total, houses and flats	288,896	233,256	96,944	90,258	66,284	20,060	5,464	21,830	822,992
Hotels, hostels, etc.	9,570	3,398	8,156	1,950	2,744	980	1,146	1,130	29,074
Shops	16,136	11,518	6,928	7,132	2,890	1,216	216	330	46,366
Factories	55,322	54,612	11,106	17,010	6,816	2,536	370	4,866	152,638
Offices	57,302	34,082	9,398	7,162	2,820	1,246	1,502	3,314	116,826
Other business premises	18,862	18,596	14,218	5,756	5,102	2,332	638	2,606	68,110
Education	35,168	17,394	15,238	10,858	8,044	2,586	254	5,794	95,336
Religious	5,254	5,380	2,214	1,642	1,300	308	46	428	16,572
Health	16,576	8,848	4,560	6,080	3,076	3,272	1,024	304	43,740
Entertainment and recreation	14,574	7,858	2,086	1,698	1,952	1,008	280	1,826	31,282
Miscellaneous	13,884	7,338	7,622	4,954	6,072	2,200	844	558	43,472
Total, other buildings	242,648	169,024	81,526	64,242	40,816	17,684	6,320	21,156	643,416
Total, new buildings	531,544	402,280	178,470	154,500	107,100	37,744	11,784	42,986	1,466,408

The following table shows the value of all new buildings completed in Australia during the years 1960-61 to 1964-65, according to type of building.

**NEW BUILDINGS COMPLETED, BY TYPE OF BUILDING: VALUE
AUSTRALIA, 1960-61 TO 1964-65
(\$'000)**

Type of building	1960-61	1961-62	1962-63	1963-64	1964-65
Houses—					
Brick, brick veneer, concrete and stone	287,512	287,482	330,048	398,664	461,528
Wood (weatherboard, etc.)	155,542	133,296	124,182	111,202	100,948
Fibro-cement	101,248	92,932	84,252	90,330	99,474
Other	2,486	2,108	2,068	2,062	3,772
Total, houses	546,788	515,818	540,550	602,258	665,722
Flats(a)	80,644	77,352	69,666	83,560	157,270
Total, houses and flats	627,432	593,170	610,216	685,818	822,992
Hotels, hostels, etc.	29,160	30,128	37,068	27,818	29,074
Shops	46,290	47,340	49,112	51,490	46,366
Factories	129,576	102,068	115,822	128,426	152,638
Offices	64,688	62,114	71,796	90,076	116,826
Other business premises	46,906	43,210	43,792	54,004	68,110
Education	70,636	82,686	85,554	80,572	95,336
Religious	14,318	14,520	16,904	13,998	16,572
Health	28,144	35,406	44,972	38,602	43,740
Entertainment and recreation	19,498	23,244	33,782	26,606	31,282
Miscellaneous	32,992	33,336	37,442	35,390	43,472
Total, other buildings	482,208	474,052	536,244	546,982	643,416
Total, new buildings	1,109,640	1,067,222	1,146,460	1,232,800	1,466,408

(a) Prior to 1961-62, the value of Northern Territory flats was included with houses.

The following table shows the value of all new buildings completed in Australia during the years 1962-63 to 1964-65, classified by type of building and private and government ownership.

**NEW BUILDINGS COMPLETED, BY TYPE OF BUILDING AND OWNERSHIP
VALUE, AUSTRALIA, 1962-63 TO 1964-65
(\$'000)**

Type of building	Private			Government		
	1962-63	1963-64	1964-65	1962-63	1963-64	1964-65
Houses—						
Brick, brick veneer, concrete and stone	290,246	355,364	411,346	39,802	43,298	50,182
Wood (weatherboard, etc.)	113,646	98,886	89,370	10,536	12,318	11,578
Fibro-cement	64,678	68,496	69,430	19,574	21,834	30,044
Other	2,010	1,948	3,472	58	114	300
Total, houses	470,580	524,694	573,618	69,970	77,564	92,104
Flats	58,328	72,962	145,284	11,338	10,598	11,986
Total, houses and flats	528,908	597,656	718,902	81,308	88,162	104,090
Hotels, hostels, etc.	35,602	26,628	27,664	1,466	1,190	1,410
Shops	48,334	50,076	44,912	778	1,414	1,454
Factories	104,546	112,136	135,554	11,276	16,290	17,084
Offices	51,810	61,412	76,340	19,986	28,664	40,486
Other business premises	32,014	41,216	48,912	11,778	12,788	19,198
Education	16,362	19,230	18,574	69,192	61,342	76,762
Religious	16,904	13,998	16,572	..	..	..
Health	3,740	4,434	6,660	41,232	34,168	37,080
Entertainment and recreation	22,326	21,874	24,730	11,456	4,732	6,552
Miscellaneous	11,946	13,250	15,992	25,496	22,140	27,480
Total, other buildings	343,584	364,254	415,910	192,660	182,728	227,506
Total, new buildings	872,492	961,910	1,134,812	273,968	270,890	331,596

Value of building approved

The following table shows the values of approvals for houses and flats, other new buildings, and alterations and additions in Australia for the years 1960-61 to 1964-65. Additions of \$10,000 and over are included with new buildings in all States except New South Wales, where they are included in alterations and additions.

**BUILDING APPROVED: VALUE, AUSTRALIA, 1960-61 TO 1964-65
(\$'000)**

	1960-61	1961-62	1962-63	1963-64	1964-65
Houses and flats	600,786	558,584	632,732	794,514	886,324
Other new buildings	446,698	457,742	511,362	594,810	692,526
Total, new buildings	1,047,484	1,016,326	1,144,094	1,389,324	1,578,850
Alterations and additions	156,800	156,210	172,256	184,142	212,580
Total, building	1,204,284	1,172,536	1,316,350	1,573,466	1,791,430
Private	936,558	891,050	1,004,310	1,161,564	1,380,326
Government	267,726	281,486	312,040	411,902	411,104

Persons working on jobs carried out by builders of new buildings

The following table shows the number of contractors, sub-contractors and wage earners working on jobs *carried out by builders of new buildings* in each State and Territory at 30 June 1965. It also shows the numbers of these persons classified according to their main building occupations and the type of building on which they were working.

PERSONS WORKING ON JOBS CARRIED OUT BY BUILDERS OF NEW BUILDINGS, STATES AND TERRITORIES, 30 JUNE 1965

(INCLUDING CONTRACTOR AND SUB-CONTRACTOR PRINCIPALS ACTUALLY WORKING ON JOBS BUT EXCLUDING PERSONS WORKING ON OWNER-BUILT HOUSES)

—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Contractors	4,027	3,365	2,285	713	576	509	87	250	11,812
Sub-contractors	9,491	9,421	2,852	3,662	2,451	742	187	788	29,594
Wage earners	40,634	30,209	16,529	10,892	9,609	4,141	718	3,697	116,429
Total	54,152	42,995	21,666	15,267	12,636	5,392	992	4,735	157,835
Carpenters	17,943	15,282	9,934	3,933	3,573	2,306	316	1,305	54,592
Bricklayers	5,919	5,347	1,529	2,648	1,546	490	137	515	18,131
Painters	4,404	3,950	1,794	1,406	1,195	453	87	480	13,769
Electricians	3,295	2,462	1,004	804	886	269	68	267	9,055
Plumbers	4,909	3,998	1,754	1,353	1,164	383	101	376	14,038
Builders' labourers	8,571	5,229	3,323	2,193	1,982	862	168	933	23,261
Other	9,111	6,727	2,328	2,930	2,290	629	115	859	24,989
Total	54,152	42,995	21,666	15,267	12,636	5,392	992	4,735	157,835
New houses and flats	24,296	21,621	8,742	8,684	5,595	2,294	566	2,068	73,866
Other new buildings(a)	26,655	19,960	11,623	6,273	5,911	2,636	418	2,412	75,888
Repairs and maintenance(b)	3,201	1,414	1,301	310	1,130	462	8	255	8,081
Total	54,152	42,995	21,666	15,267	12,636	5,392	992	4,735	157,835

(a) Includes persons working on alterations and additions carried out by builders of new buildings.
 (b) Carried out by builders of new buildings.

The number of persons in each State and Territory working on jobs *carried out by builders of new buildings* at the end of June of each year 1961 to 1965 is shown in the following table.

PERSONS WORKING ON JOBS CARRIED OUT BY BUILDERS OF NEW BUILDINGS, STATES AND TERRITORIES, JUNE 1961 TO 1965

(INCLUDING CONTRACTOR AND SUB-CONTRACTOR PRINCIPALS ACTUALLY WORKING ON JOBS BUT EXCLUDING PERSONS WORKING ON OWNER-BUILT HOUSES)

At—	N.S.W. (a)	Vic. (a)	Qld	S.A.	W.A. (a)	Tas.	N.T.	A.C.T.	Aust. (a)
30th June, 1961	39,981	32,195	18,192	12,416	8,456	4,793	608	2,973	119,614
29th " 1962	42,420	35,188	19,407	12,346	10,250	5,402	667	3,932	129,612
28th " 1963	44,693	37,878	19,923	12,948	9,964	5,312	578	4,397	135,693
30th " 1964	48,848	39,697	20,544	14,532	11,553	5,198	902	4,486	145,760
30th " 1965	54,152	42,995	21,666	15,267	12,636	5,392	992	4,735	157,835

(a) Prior to 29 June 1962, excludes the number of persons working on certain private buildings, other than houses, which were erected without the services of a contractor responsible for the whole job.

Government activities in the housing field

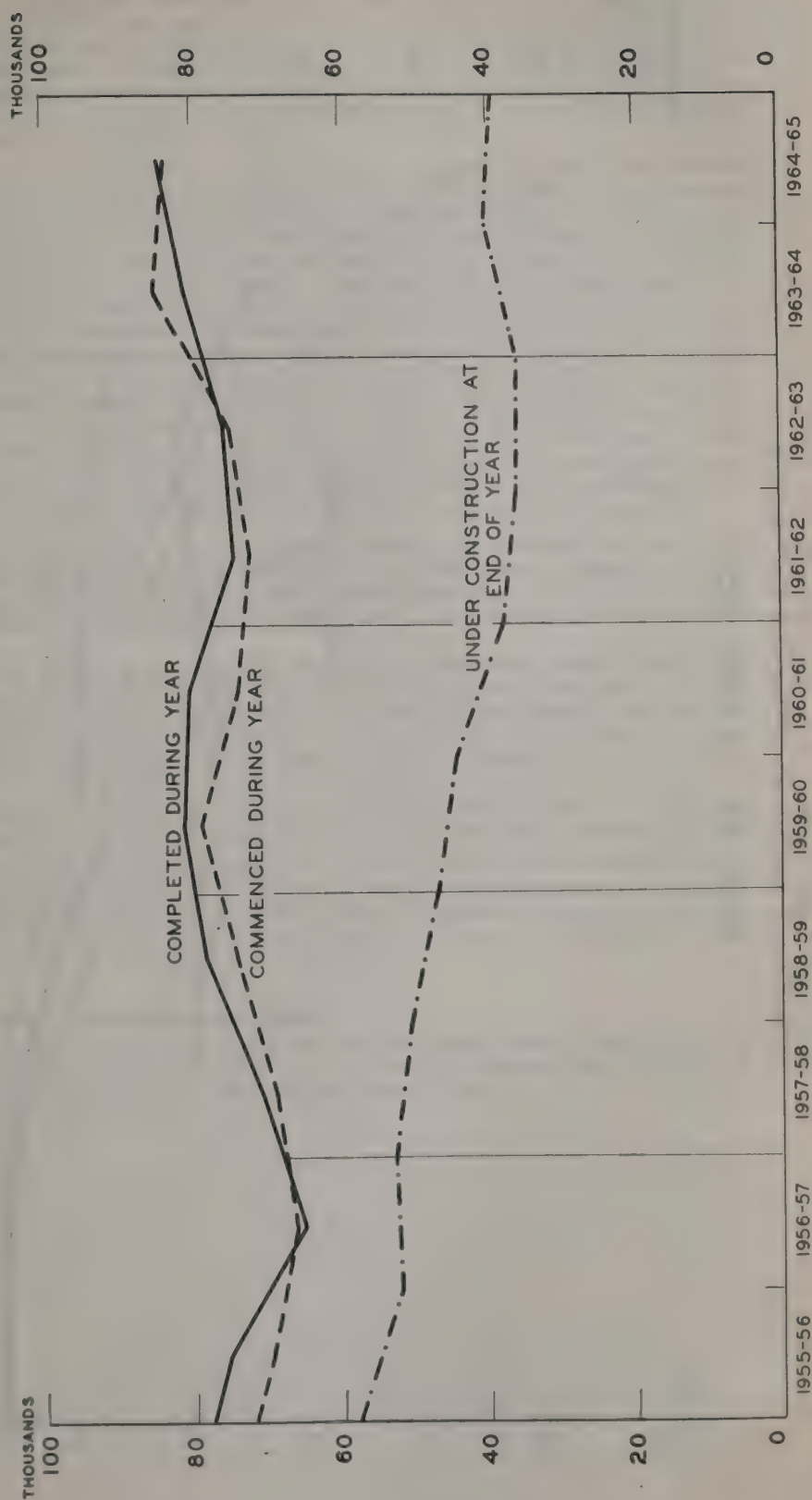
Housing Agreements between Commonwealth and State Governments

Under the Commonwealth-State Housing Agreements the Commonwealth Government makes substantial long-term loans to the States for the provision of housing.

The 1945 Agreement. In November 1945 the Commonwealth Government entered into an Agreement with the Governments of the States whereby the Commonwealth Government would provide finance for, and the State Governments would undertake the building of, housing projects. Tasmania withdrew from the Agreement in August 1950, and South Australia did not begin to operate under it until July 1953. Between 1945-46 and 1955-56, under this Agreement, the Commonwealth Government advanced \$177,698,000 to New South Wales; \$171,562,000 to Victoria; \$48,688,000 to Queensland; \$23,400,000 to South Australia; \$54,100,000 to Western Australia; and \$5,670,000 to Tasmania. When Tasmania withdrew from the Agreement, it repaid all advances made to it.

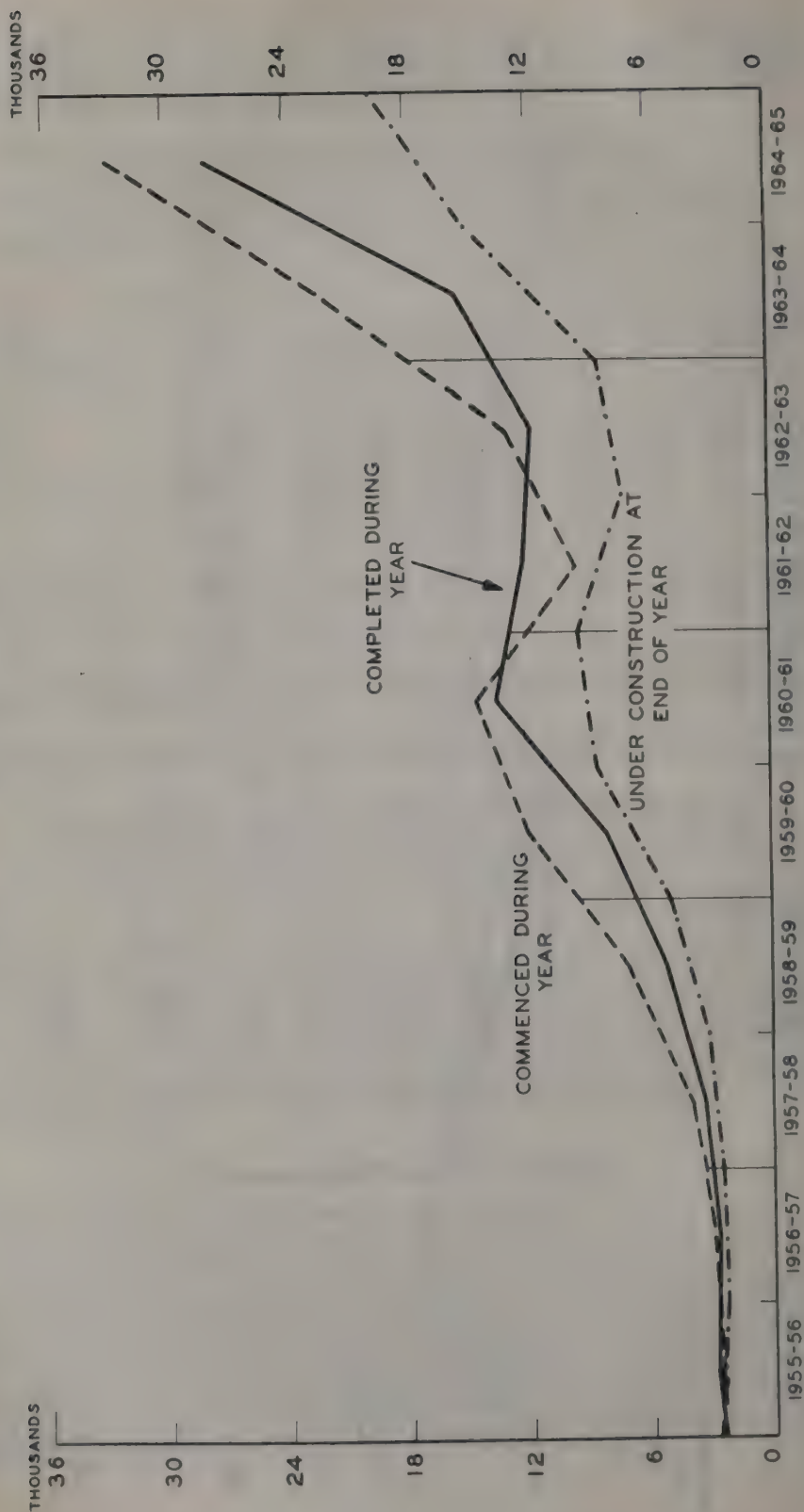
NEW HOUSES: AUSTRALIA

1955-56 TO 1964-65



NEW FLATS: AUSTRALIA

1955-56 TO 1964-65



Initially, dwellings constructed under the 1945 Agreement were sold only to tenants provided the tenant was able to arrange payment of the full purchase price to the State immediately on sale. Under this arrangement sales to tenants were relatively few. Subsequent amendments to the 1945 Agreement in 1955 and 1961 progressively eased the conditions of sale to tenants of dwellings constructed under the Agreement and permitted sales to tenants on terms and prices decided by the States. For information on the conditions of sale, etc., under the 1945 Agreement see Year Book No. 48, page 367.

The 1956 Agreement. In 1956 the Commonwealth and the States entered into a new Agreement under which added emphasis was placed on the construction of dwellings for private ownership. The Commonwealth Government provided finance to the States over a period of five years ending 30 June 1961 for the erection of dwellings. The Agreement provided that for the first two years of the five-year period a minimum of twenty per cent of the money advanced to each State was to be allocated to a Home Builders' Account and for the remaining three years a minimum of thirty per cent. Funds in these accounts were then advanced to building societies and other approved institutions for lending to private home builders and purchasers. The balance of the amounts advanced to each State was used by the States for the erection of dwellings for either rental or sale. The States determined the type of dwellings to be erected, their location and the selection of tenants, and also fixed the terms of sale. The Commonwealth was entitled to specify that up to five per cent of the moneys allocated for the erection of dwellings by the State be set aside for the erection of dwellings for serving members of the defence forces nominated by the Commonwealth. The Commonwealth provided supplementary advances to the States equal to the amounts set aside by them for this purpose. For other features of the 1956 Commonwealth and State Housing Agreement see Year Book No. 48, page 368.

The 1961 Agreement. The period during which Commonwealth advances to the States could be made under the 1956 Agreement terminated on 30 June 1961. A new Agreement was entered into which extended for a further five years the period during which advances could be made and also amended the 1956 Agreement in certain respects. The main effects of the amendments were:

- (a) to allow the Commonwealth and a State to agree that the State would set aside funds for the erection of dwellings for rental to servicemen in excess of the previous maximum of five per cent of the allocation to the State housing authority, provided the Commonwealth made supplementary advances for the same purpose of the same amount or of such greater amount as was agreed between the Commonwealth and the State; and
- (b) to provide for a rate of interest on Commonwealth advances equal to the long-term Commonwealth bond rate at the time each advance was made, less one per cent per annum.

The interest rates under the Agreement have been: from 1 July 1961 to 6 February 1962, $4\frac{1}{2}$ per cent per annum; 7 February 1962 to 22 July 1963, 4 per cent per annum; 23 July 1963 to 13 May 1964, $3\frac{1}{2}$ per cent per annum; 14 May 1964 to 12 August 1964, $3\frac{3}{4}$ per cent per annum; 13 August 1964 to 12 April 1965, 4 per cent per annum; and since 13 April 1965, $4\frac{1}{4}$ per cent per annum.

Operations under the various Housing Agreements

The following tables show the operations under the various Housing Agreements during 1964-65 and to 30 June 1965. The earliest single year for which details are given in the tables is 1955-56; for earlier years see Year Book No. 50, pages 382-383.

COMMONWEALTH AND STATE HOUSING AGREEMENTS, SUMMARY, 1964-65

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
ADVANCES TO STATES (\$'000)							
Advances to States(a), 1956 and 1961 Agreements	38,132	34,360	8,232	20,500	7,492	6,400	115,116
State Housing Programme(b)	24,500	18,900	4,620	10,000	5,040	4,480	67,540
Home Builders' Account—							
Advances(c)	10,500	8,100	1,980	10,500	2,160	1,920	35,160
Amounts drawn by institutions	13,674	11,702	2,704	11,500	2,348	1,878	43,806
Service Housing Funds allocated by—							
Commonwealth	3,132	7,360	1,632	..	292	..	12,416
States	1,226	946	230	..	252	..	2,654

NUMBER OF DWELLINGS

State Housing Programme—							
Commenced	5,028	2,861	(d) 578	1,823	828	590	(d) 11,708
Completed	4,368	2,688	(d) 682	1,629	668	586	(d) 10,621
Under construction at 30 June 1965	3,479	2,033	(d) 251	1,610	385	246	(d) 8,004
Home Builders' Account—							
Purchased—New	816	308	169	779	76	61	2,209
Other	54	212	..	..	..	10	276
New construction—							
Approved	1,061	912	254	1,110	297	360	3,994
Commenced	1,134	912	250	1,223	293	273	4,085
Completed	1,104	1,287	270	1,229	278	238	4,406
Service Housing—							
Agreed programme	637	844	235	..	61	..	1,777
Completed(e)	249	384	126	3	47	..	809
Sold under—							
1945 Agreement	569	792	141	2	67	(f)	(f) 1,571
1956 and 1961 Agreements	1,777	1,237	(d) 89	810	120	531	(d) 4,564

(a) Includes supplementary advances for Service Housing. (b) The maximum amount is 70 per cent of the Commonwealth advances, other than supplementary advances for Service Housing. (c) The minimum amount must be 30 per cent of the Commonwealth advances, other than supplementary advances for Service Housing. (d) These figures include estimates supplied by the Queensland Housing Commission. During 1958-59 and subsequent years the Queensland State Housing programme was financed from a Trust Fund which included Housing Agreement moneys, together with moneys from other sources. (e) Also included in State Housing Programme above. (f) Tasmania did not operate under the 1945 Agreement after August 1950.

COMMONWEALTH AND STATE HOUSING AGREEMENTS: ADVANCES TO STATES(a), TO 1964-65 (\$'000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.(b)	Total
1955-56	21,600	21,600	6,000	7,200	10,000	..	66,400
1956-57	22,464	20,800	5,720	7,422	6,222	4,050	66,678
1957-58	22,880	20,800	6,572	8,320	6,030	4,068	68,670
1958-59	24,840	21,320	6,852	10,350	6,206	4,440	74,008
1959-60	25,564	21,320	7,204	10,184	6,098	3,914	74,284
1960-61	26,910	21,320	6,416	11,658	6,112	4,004	76,420
1961-62	35,266	28,002	8,794	18,126	7,442	5,856	103,486
1962-63	33,800	26,600	8,502	19,012	7,010	5,200	100,124
1963-64	34,164	27,628	10,020	19,400	7,052	6,000	104,264
1964-65	38,132	34,360	8,232	20,500	7,492	6,400	115,116
Total from 1 July 1945	441,718	393,712	117,000	148,372	113,764	49,602	1,264,168

(a) Includes supplementary advances (Service Housing) under the 1956 and 1961 Agreements. (b) Tasmania withdrew from the 1945 Agreement in August 1950 and repaid all advances made to it.

COMMONWEALTH AND STATE HOUSING AGREEMENTS: NUMBER OF DWELLINGS PROVIDED(a), STATES, TO 1964-65

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.(b)	Total
1955-56	3,529	4,200	797	1,885	1,539	..	11,950
1956-57	3,602	3,038	1,369	1,997	958	525	11,489
1957-58	4,494	3,369	1,113	1,959	1,472	566	12,973
1958-59	4,440	3,673	(c) 1,368	2,023	1,225	594	(c) 13,323
1959-60	4,736	3,924	(c) 1,173	2,318	1,009	688	(c) 13,848
1960-61	4,309	3,447	(c) 1,247	2,457	1,056	666	(c) 13,182
1961-62	6,163	4,569	(c) 1,419	3,101	1,242	706	(c) 17,200
1962-63	5,654	3,921	(c) 1,239	3,560	1,519	804	(c) 16,697
1963-64	5,553	3,922	(c) 1,435	3,429	1,460	824	(c) 16,623
1964-65	6,342	4,431	(c) 1,121	3,637	1,022	895	(c) 17,448
Total from 1 July 1945(d)	83,011	65,219	c 21,141	29,385	23,037	7,398	c 229,191

(a) The total number of houses and flats completed under State Housing Programmes plus, since 30 June 1956, the numbers completed and purchased under the Home Builders' Account. (b) Tasmania withdrew from the 1945 Agreement in August 1950 and repaid all advances made to it. (c) The figure for the number of dwellings completed from Housing Agreement moneys under the State Housing programme of Queensland is an estimate only, supplied by the Queensland Housing Commission (see footnote (d) to table on page 290). (d) Includes some dwellings erected before 1945-46 to which the 1945 Agreement applied.

COMMONWEALTH AND STATE HOUSING AGREEMENTS: NUMBER OF HOUSES SOLD, TO 1964-65

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
1955-56	733	1,289	121	275	177	..	2,595
1956-57	3,197	1,732	466	231	294	207	6,127
1957-58	3,679	1,336	672	259	737	398	7,081
1958-59	2,507	2,506	(a) 628	252	222	247	(a) 6,362
1959-60	2,701	2,672	(a) 566	140	324	311	(a) 6,714
1960-61	2,004	2,704	(a) 551	88	572	329	(a) 6,248
1961-62	2,303	2,125	(a) 476	33	555	354	(a) 5,846
1962-63	2,598	1,791	(a) 255	96	590	311	(a) 5,641
1963-64	1,521	1,799	(a) 382	457	210	431	(a) 4,800
1964-65	2,346	2,029	(a) 230	812	187	531	(a) 6,135
Total from 1 July 1948	25,258	20,073	(a) 4,607	2,651	5,470	3,119	(a) 61,178

(a) Estimates supplied by the Queensland Housing Commission (see footnote (d) to table on page 290).

War service homes

The provision of war service homes is a function of the Department of Housing, and the administration of the War Service Homes Act is under the control of the Director of War Service Homes. The *War Service Homes Act* 1918-1962 is a measure for the provision of homes for Australian ex-servicemen who served during the 1914-1918 War or the 1939-1945 War and to persons with service in Korea or Malaya. Provision is made also for assistance to the female dependants of Australian ex-servicemen and other classes of eligible persons as defined in the Act. Assistance may be granted to an eligible person and the wife or husband of that person as joint tenants, but homes are not provided for occupation purely on a tenancy basis.

Operations under the War Service Homes Act

The following tables give details of the operations under the War Service Homes Act in the year 1964-65 and from the inception of the scheme on 6 March 1919 to 30 June 1965. The earliest single year for which details are given in the tables is 1955-56; for earlier years see consecutive issues of the Year Book. The figures shown include operations in the Territories of Papua, New Guinea and Norfolk Island.

**WAR SERVICE HOMES ACT: OPERATIONS, AUSTRALIA, 1964-65, AND TO
30 JUNE 1965**

Particulars	1964-65			From inception to 30 June 1965		
	Eligibility established from service in—		Total	Eligibility established from service in—		Total
	1914-18 War	1939-45 War, Korea or Malaya		1914-18 War	1939-45 War, Korea or Malaya	
Applications received . No.	743	11,638	12,381	116,273	370,550	486,823
Applications approved . "	541	9,486	10,027	56,463	214,066	270,529
Homes purchased . "	917	5,810	6,727	19,453	105,922	125,375
Homes built, or assistance given to build them . No.	1,099	299	1,398	24,985	64,413	89,398
Mortgages discharged . "	57	1,494	1,551	4,114	27,723	31,837
Total homes provided . "	1,648	8,028	9,676	48,127	198,483	246,610
Transfers or resales . "	90	679	769	9,401	12,332	21,733
Total capital expenditure \$'000	n.a.	n.a.	70,104	n.a.	n.a.	1,085,406
Total receipts . "	n.a.	n.a.	60,866	n.a.	n.a.	567,122

**WAR SERVICE HOMES DIVISION: OPERATIONS, AUSTRALIA
1955-56 TO 1964-65**

Year	Number of—					Total capital expenditure	Total receipts
	Applications received	Homes provided					
		Homes purchased (a)	Homes built (b)	Mortgages dis-charged	Total		
1955-56 . . .	20,968	4,802	5,777	1,224	11,803	\$'000 60,134	\$'000 23,922
1956-57 . . .	20,553	5,813	4,187	1,227	11,227	60,342	25,380
1957-58 . . .	22,081	6,150	5,524	1,584	13,258	70,364	29,304
1958-59 . . .	21,935	6,660	5,254	1,497	13,411	70,318	33,538
1959-60 . . .	20,661	8,437	3,169	1,411	13,017	70,136	39,672
1960-61 . . .	15,888	8,005	2,791	2,211	13,007	70,084	42,028
1961-62 . . .	16,925	7,708	2,572	2,137	12,417	70,050	43,006
1962-63 . . .	16,015	6,855	1,944	1,857	10,656	75,020	48,250
1963-64 . . .	13,812	6,206	1,784	1,636	9,626	70,016	55,166
1964-65 . . .	12,381	6,727	1,398	1,551	9,676	70,104	60,866

(a) Homes purchased with the assistance of War Service Homes Division. (b) Or assistance given to build a home.

**WAR SERVICE HOMES DIVISION: NUMBER OF HOMES PROVIDED
STATES AND TERRITORIES, 1955-56 TO 1964-65**

Year	N.S.W. (a)	Vic.	Qld (b)	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1955-56 . . .	4,652	3,347	1,099	797	1,522	294	8	84	11,803
1956-57 . . .	4,316	3,666	883	859	1,157	259	2	85	11,227
1957-58 . . .	5,236	4,132	855	1,079	1,588	297	3	68	13,258
1958-59 . . .	6,176	3,939	994	889	1,002	349	8	54	13,411
1959-60 . . .	5,698	3,908	1,112	853	1,096	277	7	66	13,017
1960-61 . . .	6,101	3,308	1,145	876	1,288	233	9	47	13,007
1961-62 . . .	4,871	3,534	1,525	912	1,243	239	6	87	12,417
1962-63 . . .	4,037	2,841	1,394	889	1,139	229	5	122	10,656
1963-64 . . .	3,747	2,787	1,140	695	939	222	3	93	9,626
1964-65 . . .	3,901	2,670	1,184	752	885	216	..	68	9,676

(a) Includes Norfolk Island.

(b) Includes Territories of Papua and New Guinea.

In addition to the homes provided under the War Service Homes Act and shown in the table above, 2,246 homes, which had been provided originally under the Housing Agreements with the States, have been taken over in accordance with those Agreements, 84 being taken over during 1964-65.

Home Savings Grant Scheme

The operation of the Home Savings Grant Scheme is a function of the Commonwealth Department of Housing. The purpose of the scheme is to assist young married persons to purchase or build their own homes. A further objective is to increase the proportion of total private savings available for housing purposes by encouraging young people to save with those institutions which provide the bulk of long-term housing finance. The scheme was introduced by the *Homes Savings Grant Act* 1964. It was assented to on 28 May 1964, and applications for grants commenced to be received on 20 July 1964 on the opening of offices of the Department in each State and in the Australian Capital Territory. The Act was amended on 21 April 1965 to remove a number of anomalies revealed by experience in operating the scheme.

The scheme provides for the payment of grants from the National Welfare Fund of \$2 for every \$6 saved by young persons for the first home they own after marriage. The savings must be made over a period, and held in an approved form. The maximum grant to a married couple, or to husband or wife if only one is eligible, is \$500 on savings of \$1,500 or more. Smaller grants are, however, payable on lesser amounts saved. To be eligible for the grant, a person must be married, and must have—or must be married to a person who has—entered into a contract to buy a home or have one built, or begun to build a home as an owner-builder. The person must be under 36 years of age at the time of marriage and at the date of the contract to buy or build or the date building began, must have either been an Australian citizen or lived in Australia during the three years immediately preceding that date, and must also have saved in Australia in an approved form throughout that period. Those three years together with any earlier corresponding years during which savings are made in an approved form are known as the applicants' 'savings years'. The grant is payable in respect of existing homes and homes being built. Flats and home-units may also be eligible provided separate title can be obtained. The home, including the land, the house itself and any other improvements, must not cost more than \$14,000. Most homes are eligible, the main exception being homes purchased from State housing authorities, which have been built with money advanced by the Commonwealth under the Commonwealth-State Housing Agreement at concessional rates of interest.

The main forms of saving acceptable under the Scheme are Home Savings Accounts with savings banks, fixed deposits with trading banks designated Home Savings Accounts and deposits with or shares in registered building or co-operative housing societies. Savings spent in connection with the purchase or construction of the home prior to the date of the contract to buy or build the home, or the date building began, are also acceptable. In addition, savings in certain other forms up to 31 December 1964 are acceptable up to 31 December 1967 if they remain in those forms. These forms are accounts with savings and trading banks other than Home Savings Accounts, and deposits with registered friendly societies and credit unions. However, all new and additional savings after 1 January 1965 must be in one or more of the forms mentioned earlier to be acceptable. The amount of savings that qualify for a grant is the sum of the amounts saved, in acceptable forms, in each savings year. However, in any savings year commencing on or after 1 January 1965 there is a limit of \$500 on the amount of savings that can qualify for a grant. In a savings year commencing before 1 January 1965 the maximum amount that can qualify may be more than \$500 but may not exceed \$1,120.

Full details of the scheme are set out in the official pamphlet *A Grant for Your Home* available from banks, post offices and offices of the Department throughout Australia. Additional statistical information is contained in the First Report by the Secretary, Department of Housing, on the *Homes Savings Grant Act 1964-1965*, which is available from the Government Printer, Canberra.

Operations under Home Savings Grant Scheme

Particulars of applications received and approved during the period from 20 July 1964 to 30 June 1965 are set out in the following table.

HOME SAVINGS GRANT SCHEME: OPERATIONS, STATES AND TERRITORIES 1964-65

		N.S.W.	Vic.	Qld	S.A.(a)	W.A.	Tas.	A.C.T.(b)	Aust.
Applications received	No.	13,053	10,723	4,370	3,531	2,203	1,109	294	35,283
Applications approved	"	8,855	7,621	3,355	2,556	1,622	836	234	25,079
Grants approved	\$'000	4,110	3,582	1,478	1,146	710	374	110	11,510
Average grant approved	\$	464	470	440	448	438	448	470	458
Expenditure from National Welfare Fund	\$'000	4,054	3,536	1,458	1,132	698	364	108	11,350

(a) Includes Northern Territory.

(b) Includes Municipality of Queanbeyan, N.S.W.

Homes qualifying for grants

The two following tables contain particulars of homes in respect of which grants were approved. As grants are payable only to persons under 36 years of age and in respect of homes costing no more than \$14,000, these statistics should not be regarded as being applicable to home owners in general.

HOME SAVINGS GRANT APPLICATIONS APPROVED: MANNER OF ACQUISITION TOTAL COST AND AVERAGE COST OF HOME (INCLUDING LAND) STATES AND TERRITORIES, 1964-65

State or Territory	Purchase of house(a)			Purchase of flat/home unit			Home built under contract		
	Number of approvals	Total cost	Average cost	Number of approvals	Total cost	Average cost	Number of approvals	Total cost	Average cost
		\$'000	\$		\$'000	\$		\$'000	\$
New South Wales	4,648	43,934	9,452	195	1,992	10,210	3,706	38,366	10,352
Victoria	3,749	36,570	9,754	11	118	10,806	3,466	36,434	10,512
Queensland	1,703	13,222	7,764	3	30	9,924	1,482	12,876	8,688
South Australia(c)	1,282	11,806	9,210	2	14	7,326	1,210	12,118	10,014
Western Australia	731	6,048	8,274	..	..	..	814	8,028	9,862
Tasmania	396	3,286	8,298	..	..	..	306	2,878	9,404
Australian Capital Territory(d)	115	1,394	12,124	..	..	..	93	1,144	12,304
Australia	12,624	116,260	9,210	211	2,154	10,210	11,077	111,544	10,096

State or Territory	Owner-built home			All homes		
	Number of approvals	Total cost (b)	Average cost (b)	Number of approvals	Total cost	Average cost
		\$'000	\$		\$'000	\$
New South Wales	306	3,068	10,026	8,855	87,360	9,866
Victoria	395	4,042	10,232	7,621	77,166	10,126
Queensland	167	1,438	8,608	3,355	27,564	8,216
South Australia(c)	62	642	10,338	2,556	24,580	9,616
Western Australia	77	744	9,662	1,622	14,820	9,136
Tasmania	134	1,272	9,492	836	7,436	8,894
Australian Capital Territory(d)	26	320	12,348	234	2,858	12,220
Australia	1,167	11,526	9,876	25,079	241,784	9,640

(a) Includes previously occupied houses. (b) Based on the cost of the land and an estimated value of the house. (c) Includes Northern Territory. (d) Includes Municipality of Queanbeyan, N.S.W.

**HOME SAVINGS GRANT APPLICATIONS APPROVED: METHOD OF FINANCING
HOMES AND AVERAGE MORTGAGE LOANS, STATES AND
TERRITORIES, 1964-65**

State or Territory	Method of financing homes				Average first mortgage loan (b)	Average second mortgage loan
	With first mortgage loan and without second mortgage loan	With first and second mortgage loans	Other(a)	Total		
	number	number	number	number	\$	\$
New South Wales	7,198	1,432	225	8,855	6,364	1,540
Victoria	5,681	1,449	491	7,621	6,734	1,092
Queensland	2,926	173	256	3,355	6,154	1,212
South Australia(c)	1,761	703	92	2,556	6,644	1,338
Western Australia	1,193	327	102	1,622	6,196	1,304
Tasmania	620	158	58	836	6,124	1,438
Australian Capital Territory(d)	103	130	1	234	7,056	2,694
Australia	19,482	4,372	1,225	25,079	6,464	1,360

(a) Homes financed without mortgage loan. Includes homes financed from the applicant's own resources only, with personal or unsecured loans, purchased under a terms contract of sale, etc. (b) Includes homes financed with and without second mortgage loans. (c) Includes Northern Territory. (d) Includes Municipality of Queanbeyan, N.S.W.

Housing Loans Insurance Scheme

The Housing Loans Insurance Corporation was established by the *Housing Loans Insurance Act 1965*, assented to on 4 May 1965 to insure approved lenders against losses arising from the making of housing loans. The Corporation consists of a chairman (who is also managing director) and a deputy chairman, who are full-time members, and three part-time members, all of whom are appointed by the Governor-General. The main purpose of the activities of the Housing Loans Insurance Corporation is to assist people to obtain, as a single loan and at a reasonable rate of interest, the money they need and can afford to borrow to obtain a home suited to their requirements.

To encourage the making of high-ratio loans the Corporation will insure loans up to 95 per cent of valuation for houses valued at \$12,000 or less. Where the valuation of a home exceeds \$12,000 the maximum insurable amount is 95 per cent of the first \$12,000 of valuation plus 70 per cent of the balance or \$17,000, whichever is the lesser. A once-and-for-all premium of 2 per cent of the amount of the loan is charged by the Corporation. The premium is payable by the borrower, but lenders may agree to add it to the amount of the loan for repayment by the borrower over the duration of the loan. The maximum rate of interest that may be charged on insured loans is $7\frac{1}{4}$ per cent (December 1965) per annum and the maximum period for repayment is thirty-five years. The maximum rate of interest is kept under continuing review and may be varied by the Corporation, with the concurrence of the Minister for Housing, whenever charges appear to be warranted by movements in interest rates generally or by other developments.

The Housing Loans Insurance Corporation insures loans that are made for a wide range of purposes in addition to the purchase or construction of a dwelling. The other purposes include alterations, extensions or improvements to a dwelling, and the provision or improvement of roads, kerbing and footpaths. An insured loan may be made only by an approved lender. Approved lenders are appointed by the Corporation from within approved classes of lenders specified by the Minister for Housing. The approved classes include banks, building societies, co-operative housing societies, friendly societies, life insurance companies and trustee companies. The Housing Loans Insurance Corporation commenced its insurance operations in November 1965.

State housing authorities

The following paragraphs describe briefly the organization of the various State housing authorities and their activities in the fields of home construction and provision of homes on a rental basis (see pages 300-3 for their financial advances to persons wishing to purchase or build a home). For summarized figures of total government construction of houses and flats, see pages 280-1 and 283-4.

New South Wales—The Housing Commission of New South Wales. The Housing Commission of New South Wales was constituted in 1942, with a full-time salaried chairman and four other members remunerated by fees. The principal function of the Commission is the provision of low-cost housing for rental or sale to persons in the lower or moderate income groups. The Commission is also empowered to make surveys of housing conditions, recommend local government building ordinances, provide assistance to private home builders, and undertake the manufacture, purchase, and supply of building materials.

Advances from the Commonwealth have provided most of the Housing Commission's capital funds. Of the \$431,473,552 total capital funds available to the Commission from its inception to 30 June 1965, \$370,207,700 (or 85·8 per cent) came from Commonwealth advances, \$10,444,048 (2·4 per cent) from Consolidated Revenue, \$14,265,354 (3·3 per cent) from General Loans Account and \$13,771,320 (3·2 per cent) from other State funds, and \$22,785,130 (5·3 per cent) from the Commission's own funds. During the year 1964-65 the Housing Commission's income and expenditure (other than capital transactions) was—total income, \$26,376,586 (consisting of rent \$17,414,116, interest \$5,817,444, other \$3,145,026); and total expenditure \$22,240,812.

Most of the permanent dwellings provided by the Commission have been erected under the Commonwealth-State Housing Agreements. In 1964, 5,123 houses and flats, valued at \$24,428,332, were completed for the Housing Commission by private builders on contract to the Commission.

Upon request by other State Departments the Housing Commission will erect houses for employees of those Departments, e.g., Education, Agriculture, Water Conservation, etc. These Departments provide the necessary land and funds needed to finance the erection of the houses. Rentals charged are fixed by the Departments in accordance with the salaries of the officers occupying the houses. In addition, the Commission erects (with State funds) dwellings for employees of industries connected with decentralization and development. The number of rental houses erected (other than under the Housing Agreements) is 1,493. Specially designed units are erected by the Housing Commission to provide dwellings for elderly persons at rentals within their means. The rents of these units are \$2 per week for elderly single persons and \$3 per week for elderly couples, and 2,225 units had been completed at 30 June 1965.

Applicants for Commission housing may, when their priority has been reached, elect either to purchase or to rent the dwelling allocated to them. Should they decide to purchase, terms of sale provide for a minimum deposit of \$100 with repayments spread over a maximum period of forty-five years, with interest currently at the rate of 5 per cent. There is no limit on the amount of outstanding indebtedness. Further, those tenants who originally elect to rent may subsequently purchase the dwellings occupied by them on similar terms. Applicants who have established eligibility for Housing Commission accommodation may apply to have a standard type of dwelling erected on their own block of land. At 30 June 1965, 351 dwellings had been completed under this scheme. During the years 1954 and 1955 the Housing Commission completed 100 houses for sale which were sold through the Rural Bank on the basis of 10 per cent deposit with repayment of the balance over a maximum period of forty years. This scheme was limited to 100 houses.

Victoria—Housing Commission, Victoria. A preliminary investigation into housing conditions in Victoria was begun in July 1936, when a board for the purpose was appointed by the Government. As a result of their report, the *Housing Act* 1937 was passed by Parliament and provided for the appointment of a Housing Commission of four members (reduced to three in 1954) to be the central housing authority of the State. The Housing Commission of Victoria was appointed on 1 March 1938.

The objects of the Commission as now laid down are the improvement of existing housing conditions: the provision of suitable rental housing for persons displaced by slum reclamation or living under unsatisfactory conditions, and for other eligible persons; the sale of houses to eligible persons and making of advances to such persons to enable them to own their homes; the development of land for housing and related purposes; and the responsibility of maintaining housing standards. Since the signing of the 1945 Commonwealth-State Housing Agreement the construction of dwellings has been financed by the Commonwealth Government and Commission Funds.

At 30 June 1965 the Housing Commission had completed 1,328 dwelling units under the State Housing Scheme, and 52,676 dwelling units under Commonwealth-State Agreements. An additional 2,598 units were either under construction or let to contract at this date. Specially designed dwelling units are erected by the Commission to provide dwellings for elderly persons at rentals within their means. To 30 June 1965, 2,339 units had been completed. Under the *Aborigines Act* 1958, as amended by the *Aborigines (Houses) Act* 1959, the Aborigines Welfare Board is empowered to buy houses, or land on which to erect houses for occupation as dwellings by Aborigines. To 30 June 1965, 70 units had been completed.

State Government Authorities, such as the Public Works Department, State Electricity Commission, Victorian Railways, State Rivers and Water Supply Commission, etc., provide, from time to time, the necessary land and finance for the erection of dwellings for employees of

those departments. Rentals charged are fixed by the Government Authorities in accordance with the salaries of officers occupying the dwellings. The dwellings erected by these State Government Authorities do not come under the control of the Victorian Housing Commission.

Prior to the end of the Second World War the Commonwealth Government and various State Governments made arrangements for the settlement of discharged soldiers on the land as part of a general scheme of rehabilitation of ex-members of the Services. In 1945 the Victorian Government completed an Agreement with the Commonwealth Government, and legislation was passed constituting the Soldier Settlement Commission. On 17 March 1962 the Rural Finance and Settlement Commission came into being, constituted by an Act passed in December 1961. Activities under the *Soldiers Settlement Act* 1958 and the *Land Settlement Act* 1959, previously administered by the Soldiers Settlement Commission, are now carried out by the Settlement Branch of the new Commission. At 30 June 1965 a total of 3,177 houses had been erected and 61 were still under construction or approved but not yet started.

Queensland—The Queensland Housing Commission. The Queensland Housing Commission was established in 1945 to assist in meeting the housing shortage. It took over the operations of the State Advances Corporation which was established in 1916 to make advances to home builders under 'The State Advances Act of 1916' (State housing in Queensland originally began in 1910 under the Workers' Dwelling Board). In addition, the Commission was empowered to build houses itself, either for sale or for rental.

The Housing Commission finances its operations through two Treasury Trust Funds—the Queensland Housing Commission Fund and the Commonwealth-State Housing Fund. In addition, a Home Builders' Deposit Trust Fund is available to assist eligible persons to accumulate money to acquire land and erect a Commission dwelling thereon, or to purchase a dwelling under contract of sale conditions. Total disbursements by the Commission for the year 1964-65 amounted to \$24,361,548, representing \$8,752,180 from the Queensland Housing Commission Fund and \$15,609,368 from the Commonwealth-State Housing Fund, while the Home Builders' Deposit Fund had a balance of \$1,930 at 30 June 1965.

During 1964-65 the Commission completed 1,744 house units, bringing the total completions under all schemes since the revival of housing construction in 1944-45 to 31,544. Of this number, 18,939 houses, or 60.0 per cent, were for home ownership, and 12,605, or 40.0 per cent, were for rental.

In the field of rental housing the Commission administers and acts as the constructing authority for the Commonwealth-State Housing Agreements of 1945, 1956 and 1961. These agreements have made possible large-scale home building programmes during the post-war years, the houses so built being mainly for rental, although subsequently they may be sold.

Operating under the provisions of 'The State Housing Acts, 1945 to 1962' the Commission, through its scheme of workers' dwellings, makes advances for the construction of dwellings to eligible persons who own a suitable building site. To be eligible to qualify for any of its home-ownership schemes, a person must not own, nor must his wife or her husband own, a house in Queensland or elsewhere. The number of workers' dwellings completed during 1964-65 amounted to 465, making a total of 29,456 completions since the inception of the scheme. The Commission also has power to make advances, secured by mortgage, to firms for housing of employees. Home ownership is further assisted through the Commission's power to sell houses under contract of sale conditions. It may sell houses already erected to eligible applicants, or it will erect a dwelling to the intending purchaser's own design, on Commission land, for subsequent sale to him. Tenants of rental houses may also purchase under contract of sale conditions the houses they are occupying. Contract of sale agreements were made to purchase 571 of the Commission's houses during 1964-65. The Commission is also authorized, under 'The State Housing Acts Amendment Act of 1961', to sell freehold land, or lease vacant Crown land which has been set apart for the purposes of the State Housing Acts, to an eligible person for the erection of a dwelling, subject to the condition that within eighteen months from the date of contract he will execute a building agreement for the erection of a dwelling thereon for his occupation.

South Australia—The South Australian Housing Trust. The South Australian Housing Trust was constituted in 1937 under the South Australian Housing Trust Act, 1936-1937, for the purpose of providing comfortable homes for workers in regular employment on the lower ranges of income and for tenants in serious financial straits. The Housing Trust builds houses for both rental and sale, and from July 1946 to 30 June 1965, 53,109 houses were erected by the Trust in both city and country areas.

Rents charged for Trust accommodation are generally based on the overall cost of construction, and vary not only according to the size of the dwelling but also according to date of erection. As at 1 January 1966 the rents of five-roomed houses (i.e. three bedrooms) ranged from \$4.25 a week for houses of an older type to \$7.50 a week for houses then being completed. Factors taken into consideration when allotting rental houses include date of application, housing need and suitability of tenant. Persons with high incomes are asked to consider purchasing their own homes. Two- and three-storey groups of flats with weekly rental ranging from \$8.25 to \$15.50

per flat have been built in the Metropolitan Area and at Elizabeth. At 30 June 1965, 1,199 of these flats had been completed in the Metropolitan Area and 220 at Elizabeth. In 1953 the Trust began building cottage or pensioner flats for elderly people. At 30 June 1965 it had built 732 cottage flats for its own scheme and an additional 439 for, and at the expense of, charitable organizations. In 1958 the State Government instituted the rental-grant scheme for the purpose of providing houses in the country towns for people who cannot afford to pay an economic rent, and to 30 June 1965, 181 houses had been built.

Houses built under the sales scheme, which was inaugurated in 1946, are of solid or timber-frame construction. More than 26,500 have been completed in both metropolitan and country areas since the scheme began. The Trust may receive cash payment for the house and land. More usually the purchaser pays a deposit (which varies according to the type of house and locality and the purchaser's ability to pay) and raises the balance by way of mortgage. In 1956 the Trust began the erection of houses, which may be of solid or timber-frame construction or a mixture of both, for individuals on their own land. Houses are built by contract under the Trust's supervision. Prices for building and supervision of the standard five-roomed houses covered by the scheme in late 1965 ranged from \$8,800 to \$13,700. During 1962-63 the Trust commenced construction of rental-purchase houses. The aim of this scheme is to provide less expensive houses for the lower-middle income group, and it is expected that such houses will, as far as possible, replace the demand for the double-unit type rental houses. By 1 October 1965 approximately 1,550 rental-purchase houses had been built.

Upon request by State Government Departments the Trust will erect houses for purchase by those Departments for the accommodation of their employees. Rents for the houses are determined by the Public Service Board. The Trust has built 165 houses in country towns for the Department of Aboriginal Affairs. The houses are owned and managed by the Department and let by it to specially selected Aboriginal families. The aim of the scheme is to provide an opportunity for those of Aboriginal blood, who are both able and disposed to do so, to take their place in the general community.

In order to assist primary producers the Trust will erect houses on the applicant's own land for his own use or that of his employees, either using local materials or transporting prefabricated houses to the site. At 30 June 1965 prices for three bedroom asbestos-cement sheeted timber houses erected on a level site within 100 miles of Adelaide ranged from \$6,600 upwards.

Western Australia—State Housing Commission of Western Australia. The State Housing Commission was established in January 1947, under the *State Housing Act, 1946* to replace the Workers' Homes Board. The *State Housing Act, 1946-1961* has as its objects 'the improvement of existing housing conditions' and 'the provision of adequate and suitable housing accommodation for persons of limited means and certain other persons not adequately housed'. It provides for the erection of homes for workers, the making of advances to workers for the purchase of homes, the erection of homes for letting on a weekly rental basis, the acquisition and development of land, the clearing of slums, the erection of hostels, and the planning of community facilities. The Commission, consisting of seven members, builds houses for letting or sale and lends money for home building. The houses are built by private contract on land provided by the applicant or the Commission. The administration of the Commonwealth and State Housing Agreements and the War Service Homes Act is included in the functions of the Commission. The number of houses completed under the State Housing Act up to 30 June 1965 were: freehold, 3,881; leasehold, 3,086; assistance by second mortgage, 1,342.

Various forms of assistance have been granted by the Commission to encourage home ownership, including schemes for arranging purchase by means of loans secured by mortgage, advances made under contract of sale, advances for securing homes under leasehold conditions, second mortgage loans, and loans for the completion of partly built dwellings. Under the leasehold scheme a purchaser can convert from perpetual Crown lease or lease for a term of years to freehold conditions upon having a 10 per cent equity in the improvements and by agreeing to purchase the land at the valuation determined at the date of commencement of the lease.

Purchasers of Commission houses also gain relief from a Death Benefit Scheme at no extra cost to themselves. Under this scheme the surviving spouse and children are assisted upon the death of the family wage-earner. Maximum benefit is a reduction of liability by \$1,000 plus \$200 for each dependent child under sixteen years of age. The maximum benefit is payable when the wage-earner is under thirty-six years of age, decreasing until the wage-earner reaches sixty-five years when no benefit is payable unless there are dependent children under sixteen years of age.

The Commission also conducts certain other housing schemes and has completed or is currently engaged in other specific projects, details of which are given in previous Year Books. Included among current activities are the Government Employees' Housing Scheme, which commenced in 1958-59 and up to 30 June 1965 had provided 138 houses in country areas for certain government employees; the construction of 100 houses to be built under the provisions of the *Laporte Industrial Factory Agreement Act, 1961*; and the building of up to thirty homes a year until 1969-70 as part of the Broken Hill Proprietary Company's Agreement with the State to

establish an integrated steel industry. A contract for a three-storey block of flats to accommodate seventy-six elderly lady pensioners has been signed—the third block of this nature in recent years. The Commission also undertakes the construction of houses for other State Government Departments and semi-governmental authorities. To further assist religious and charitable organizations eligible under the Commonwealth Aged Persons Homes Act, full architectural services of the Commission, which include plans, specifications, arranging of contracts and the carrying out of supervision during construction, have been provided free of cost. Up to 30 June 1965, 424 units had been completed.

The Commission administers building society legislation and the *Housing Loan Guarantee Act, 1957–1962*, under which the Government guarantees lenders of funds to building societies and other approved financial organizations making advances to families interested in owning their own home on low deposits, and at an interest rate not exceeding 6½ per cent per annum reducible.

Tasmania—The Housing Department. The Housing Department was established in July 1953 as a separate identity, and is responsible for administering that portion of the *Homes Act 1935* which relates to the acquisition and development of land for housing purposes and the erection of homes for rental and ultimate sale, and the *Homes (Old Age Pensioners') Act 1940*. Housing Department construction utilizes both day labour and private contractors to build houses on land developed by the Department. On-site construction is supported by the Department's factory, which incorporates joinery works, timber mill, plumbing and electrical workshops, material stores, and garage. Most of the dwellings constructed by the Department are three-bedroom timber dwellings. Roofing is usually corrugated iron, but some coloured asbestos cement sheeting is used. During 1964–65, 586 dwellings were completed. Construction since 1944 has comprised 9,022 dwelling units, of which 8,514 were single units (7,406 of timber), 190 were elderly persons' flatettes, 22 were maisonettes and 296 were multi-unit flats. Of the total dwellings completed, 7,976 were three-bedroom, 849 two-bedroom and 197 one-bedroom.

Flats, maisonettes and elderly persons' homes are for rental only. Allottees of single unit dwellings are encouraged to acquire properties on purchase contract where this procedure is deemed to be for their benefit, and a majority take advantage of this opportunity. Some of these dwellings, however, are occupied on a rental basis. The rental of a newly erected three-bedroom timber house in the Hobart metropolitan area approximated \$11.75 in the June quarter of 1965. In certain necessitous cases rental rebates are allowed and the Department is reimbursed by the State Treasury. Rebates on rentals of elderly persons' flatettes are graduated according to the incomes of the occupiers. Under the current rental rebate formula a married couple whose only income is the age pension pay \$3.80, while a single person solely dependent on the pension pays \$2 a week.

Allotments are made on a no-deposit purchase contract basis with repayments over a maximum term of fifty-three years, but allottees are encouraged to pay a deposit if they are in a position to do so. Purchase contracts are sometimes surrendered to the Department. Net of surrenders, 5,784 purchase contracts had been entered into by June 1965. The sale price, excluding land, of a new three-bedroom house in the Hobart metropolitan area was approximately \$6,900 in the June quarter of 1965. Prices in the north and north-western areas were slightly lower. The weekly repayment instalment on a purchase contract is less than the weekly rent of a similar dwelling, as the latter includes a charge for maintenance, whereas a person on purchase contract is responsible for maintenance of the property.

Housing schemes in Commonwealth Territories

Northern Territory. In 1946 control of all government-owned residences in the Territory (excluding those belonging to the Defence Services or Commonwealth Railways, or attached to post offices) was vested in the Administration. The Administration provides houses for rental to officers and employees of the Commonwealth. The Northern Territory Housing Commission provides rental housing for persons of limited means who are not adequately housed and who are not officers of either the Commonwealth or the Northern Territory Public Service. The Commission was established in 1959 and operates under authority of the *Housing Ordinance 1959–1965*; to 30 June 1965 a total of 676 houses and flats had been completed and a further 269 houses and 62 flats were under construction.

Australian Capital Territory. The Commonwealth Government provides houses and flats for rental to persons employed in the Australian Capital Territory. At 30 June 1965 the Department of the Interior controlled 7,114 houses and 1,942 flats for rental purposes. Government rental houses may be purchased by tenants. From 1 July 1950 to 30 June 1965, 4,930 houses had been sold to tenants.

Papua and New Guinea. In 1960 the Administration, through the Commissioner for Housing, commenced a scheme for providing low-cost houses for rental and eventual sale where possible to indigenes, mixed race peoples and Asians. To 30 June 1965, 223 houses had been completed.

Summary of rental activities of government authorities

The following table shows the revenue from rental for dwellings under control of government housing authorities each year from 1960-61 to 1964-65.

GOVERNMENT HOUSING AUTHORITIES: REVENUE FROM RENTALS, STATES AND TERRITORIES, 1960-61 TO 1964-65
(\$'000)

Year	N.S.W.	Vic.	Qld (a)	S.A. (b)	W.A.	Tas.	N.T.	A.C.T.	Aust.
1960-61 ..	12,544	11,074	3,284	5,986	3,966	996	340	2,376	40,566
1961-62 ..	13,150	11,098	3,582	6,794	4,152	1,090	404	3,196	43,466
1962-63 ..	14,232	11,410	3,966	7,504	4,384	1,122	500	3,522	46,640
1963-64 ..	16,112	12,024	4,372	8,788	4,792	1,234	622	3,712	51,656
1964-65 ..	17,414	13,322	4,732	9,184	5,177	1,266	654	3,536	55,285

(a) Excludes rentals in respect of tenanted temporary dwellings. (b) Excludes rentals in respect of temporary and emergency dwellings.

The following table shows the number of tenants paying rent for dwellings under control of government housing authorities at the end of each year from 1960-61 to 1964-65.

GOVERNMENT HOUSING AUTHORITIES: NUMBER OF TENANTS PAYING RENT STATES AND TERRITORIES, 1960-61 TO 1964-65

Year	N.S.W. (a)	Vic.	Qld (b)	S.A. (c)	W.A.	Tas.	N.T.	A.C.T. (d)	Aust.
1960-61 ..	38,756	31,894	10,629	21,114	13,041	2,803	1,210	8,349	127,796
1961-62 ..	40,796	32,146	11,079	22,983	13,338	2,935	1,366	8,832	133,475
1962-63 ..	41,207	32,371	11,575	24,632	13,848	3,144	1,678	9,073	137,528
1963-64 ..	43,007	32,870	12,084	26,024	14,875	3,230	1,752	9,143	142,985
1964-65 ..	44,494	33,541	12,605	27,113	15,394	3,238	2,166	9,054	147,605

(a) Excludes tenants of 'aged units'. (b) Excludes tenanted temporary dwellings. (c) Excludes temporary and emergency dwellings. At 30 June 1963 these numbered 2,549. (d) Number of occupied dwellings at 30 June.

Advances to home purchasers

Many prospective home purchasers wish to borrow for the purpose of constructing or purchasing their own homes. Usually the loan is covered by way of mortgage of the home to be constructed or bought. Such loans are provided from a number of private sources and from agencies owned or guaranteed by the State or Commonwealth Governments. The information in this section concerns the direct loans made to home purchasers by the more important institutional lenders. Loans to institutions which in turn lend moneys to home purchasers and loans to contract builders, etc., are excluded as far as possible. The loans may be for the construction of new dwellings, the purchase of existing dwellings, for additions, renovations, etc., as first or subsequent mortgages, overdrafts and so on. While figures of all loans to home purchasers are not available, the institutions mentioned account for a significant proportion of total loans. Details of the terms and conditions of lending are given, together with available information on the number and value of loans made.

State authorities and agencies*New South Wales*

Rural Bank of New South Wales—Sale of Homes Agency. A Sale of Homes Agency was established in 1954 within the Rural Bank's Government Agency Department to arrange for the sale on terms of houses erected by the Housing Commission of New South Wales. The Agency's operations began with the sale to selected purchasers of 100 houses made available by the Commission during 1954-55 and 1955-56. The sales were made on the basis of 10 per cent deposit and repayment of the balance over a maximum period of forty years, with interest at 4½ per cent per annum. Total advances under that scheme amounted to \$646,648; at 30 June 1965 the advances outstanding amounted to \$432,042 in respect of 85 houses.

Since 1956 the Sale of Homes Agency has acted as the agent of the Housing Commission in arranging the sale on terms of houses erected under the 1956 and 1961 Commonwealth-State Housing Agreements. These houses are sold, in general at the Bank's valuation, to persons who have satisfied the Commission as to their housing needs and have registered as prospective purchasers. The terms of sale provide for a minimum deposit of \$100 and repayment of the balance over a maximum period of forty-five years, with interest rates, since the inception of the scheme, ranging from 4½ to 5½ per cent per annum. The cash deposits and periodical instalments payable by purchasers are collected by the Agency as agent for the Commission. Particulars of the advances made by the Agency in connection with the sale of houses erected under the 1956 and 1961 Agreements are given in the following table.

**RURAL BANK OF NEW SOUTH WALES—SALE OF HOMES
AGENCY: ADVANCES FOR HOMES SOLD UNDER THE 1956
COMMONWEALTH—STATE HOUSING AGREEMENT, TO
1964-65**

Year	Advances during year		Advances outstanding at end of year(a)	
	Number of houses	Amount	Number of houses	Amount
		\$'000		\$'000
1956-57 . .	1,604	10,158	1,604	9,952
1957-58 . .	3,012	19,966	4,612	29,430
1958-59 . .	2,013	12,652	6,623	41,616
1959-60 . .	2,227	14,400	8,831	55,384
1960-61 . .	1,565	10,436	10,364	64,974
1961-62 . .	1,826	13,074	12,129	77,016
1962-63 . .	1,825	13,504	13,830	88,974
1963-64 . .	957	7,362	14,568	94,178
1964-65 . .	1,777	14,356	16,042	105,648

(a) Comprises principal outstanding and loan charges due but not paid.

Rural Bank of New South Wales—other loans. The Rural Bank of New South Wales provides assistance to individuals for the erection or purchase of homes and for other approved purposes associated with homes. Advances are based on the bank's official valuation of the dwelling. The rate of interest on long-term loans for housing purposes was 5½ per cent per annum in November 1965.

**RURAL BANK OF NEW SOUTH WALES: ADVANCES FOR
HOMES, 1955-56 TO 1964-65**

Year	Advances during year(a)		Advances outstanding at end of year(b)	
	Number of dwellings	Amount	Number of dwellings	Amount
		\$'000		\$'000
1955-56 . .	1,399	5,514	18,778	34,838
1956-57 . .	1,372	5,702	18,098	36,342
1957-58 . .	1,576	6,980	17,644	39,190
1958-59 . .	1,176	5,444	16,915	40,424
1959-60 . .	1,610	8,052	16,611	43,934
1960-61 . .	2,032	10,800	17,096	50,564
1961-62 . .	1,668	11,316	17,337	56,422
1962-63 . .	2,014	13,084	18,017	62,762
1963-64 . .	2,434	15,148	18,972	68,790
1964-65 . .	2,613	18,250	19,936	76,450

(a) The number of advances during a year represents the number of dwellings in respect of which an advance was first made in the year, but the amount of advances includes subsequent advances made in respect of the dwellings. (b) The number of advances outstanding at the end of a year represents the number of dwellings on which a debt was still outstanding. The amounts shown comprise principal outstanding and loan charges due but not paid.

Victoria

Housing Commission, Victoria. Very few houses were sold by the Commission until 1954. The amendments to the Commonwealth-State Housing Agreement in 1955-56 have had the effect of substantially increasing the number of houses sold. Whereas between 1949 and 1954 only about 100 houses were sold, a total of 19,895 houses were sold on terms to 30 June 1965, the total value of terms sales exceeding \$152 million. Until 1964-65 houses were sold on a minimum deposit of \$200, but during that year provision was made to sell without deposit in very special circumstances. The maximum repayment term is forty-five years with interest at $4\frac{1}{2}$ and $4\frac{7}{8}$ per cent.

An inducement to tenants of the Commission to purchase their homes was the introduction of a Death Benefit Scheme, to provide for the property under purchase to pass to the estate of the purchaser free of debt in the event of his death prior to completion of purchase. If application is made for admittance to the Death Benefit Scheme, the maximum period for repayment is reduced to thirty years, the rate of interest is fixed at $5\frac{1}{2}$ and $5\frac{7}{8}$ per cent and the contract must terminate before the purchaser's seventieth birthday.

Home Finance Trust. In 1956 a Home Finance Trust was established with the object of receiving money from institutions and others in order to make loans for the erection or purchase of houses. Applicants for loans must declare that they intend to use the houses as homes for themselves, their families and dependants. Except in special circumstances, no loan will be granted if the borrower or spouse already owns a house in Victoria at the date of the proposed mortgage.

Loans granted are on the basis of a first mortgage over the house. Loans are not to exceed ninety-five per cent of the value of the security (house and land) and are not made if the value of the security exceeds \$10,000. The house must not have been erected more than two years before the date of the mortgage. Repayment of loans may be made over a maximum period of thirty years, with interest charges determined by the Trust. At 30 June 1965, 2,977 loans totalling \$17,995,396 were outstanding.

In 1963 the Trust was empowered to make housing loans on the security of second mortgages subject to conditions similar to those applying to the first mortgage loans, except that the maximum term for repayment of a loan is ten years and no restriction is placed on the percentage of loan to valuation. At 30 June 1965, 1,068 second mortgage loans were outstanding, the amount involved being \$956,776. The Trust was also empowered to make a loan to the trustees of a fund established to provide a home for a doctor or a dentist at a place located more than thirty miles from the City of Melbourne. There is no valuation limit or age limit of the dwelling in cases of this nature.

(See Savings Banks, page 305, for activities of the State Savings Bank of Victoria.)

Queensland

Queensland Housing Commission. The present maximum advance allowable under the Acts is \$7,000 for a timber, brick veneer, brick, or concrete building. The rate of interest charged on new advances in 1964-65 was $4\frac{3}{8}$ per cent per annum to 9 September 1964, $5\frac{1}{4}$ per cent per annum from 10 September 1964 to 16 June 1965, and $5\frac{1}{2}$ per cent per annum from 17 June 1965. Repayment may be made at the option of the borrower over either a thirty year or a forty-five year period. A borrower or purchaser who elects to repay over a thirty year period, who is under forty years of age, and who has passed a prescribed medical examination, is entitled to free life insurance cover to an amount sufficient to liquidate his indebtedness to the Commission in the event of his death before his loan has been fully repaid, provided that the maximum benefit payable under such insurance cover does not exceed \$4,500.

Workers' dwellings. From 4 October 1962 the maximum advance under this scheme was increased to \$7,000 for all types of workers' dwellings. Total advances made for dwellings since operations commenced in 1910 to 30 June 1965 amounted to \$60,569,762.

South Australia

South Australian Housing Trust Sales Scheme. A minimum deposit of \$100 is required for houses under the Rental-Purchase Scheme for a loan, repayable at an interest rate of $4\frac{1}{2}$ per cent per annum over a period not exceeding forty years. Prospective purchasers of Housing Trust houses (other than rental-purchase houses) can arrange or have arrangements made for a first mortgage to be granted by a lending institution of their choice. In cases where the deposit and the first mortgage so raised are insufficient, the Trust may advance the balance of the house price by way of a second mortgage, the repayment term of which is a maximum of thirty years, interest being at the rate of 6 per cent per annum. During 1964-65 the Trust commenced 1,007 second mortgages valued at \$900,000. At 30 June 1965, second mortgages totalled 7,890, and the balance outstanding at that date was \$8,360,000.

State Bank of South Australia. The State Bank, together with the Housing Trust, is the principal agent of the State Government for the distribution through the Home Builders' Fund of moneys received under the Commonwealth-State Housing Agreement. During 1964-65 the Bank opened 1,774 new accounts worth \$11,522,788 in the Home Builders' Fund. The balance of loans in this Fund outstanding at 30 June 1965 totalled \$45,616,008. In addition, during 1964-65, \$746,270 was advanced to the public under the Advances for Homes Act, 1928-1958 which is administered by the Bank on behalf of the State Government. Under this Act 120 new accounts were opened during 1964-65, leaving a balance outstanding at 30 June 1965 of \$27,639,256. The present maximum housing loan under either of these schemes is \$7,000, repayable over a period not exceeding fifty years at a rate of interest of $5\frac{1}{4}$ to $5\frac{3}{4}$ per cent per annum calculated on monthly balances. Persons who have received benefit under either of these schemes are ineligible for another mortgage.

Western Australia

State Housing Commission of Western Australia. Under the State Housing Act and the Commonwealth-State Housing Agreement the maximum loan is \$6,000 by way of mortgage, while under contract of sale the maximum is \$5,800 on the building plus the value of the land in the Metropolitan Area, and greater amounts in rural areas, depending on the circumstances. For houses built north of the twenty-sixth parallel the Minister may approve of a larger advance.

To proceed under the mortgage conditions, a deposit of not less than 10 per cent is required, but under contract of sale the deposit may be as low as \$200, or less when circumstances warrant. The interest rate on all advances is $5\frac{3}{4}$ per cent per annum and the repayment period is forty-five years. The income eligibility figure varies according to the movement of the basic wage, and as at the basic wage adjustment on 26 April 1965 an applicant in the Metropolitan Area cannot have an income exceeding \$2,540 a year, plus \$50 for each dependent child under sixteen years of age. For the country the corresponding amount is \$3,054 per annum plus \$50 for each dependent child under sixteen years, and north of the twenty-sixth parallel the Minister may allow families with an income of up to \$4,000 to be given financial assistance. A second-mortgage scheme exists under the State Housing Act which provides that assistance be limited to those applicants who are building or purchasing new homes, the cost of which, excluding land, does not exceed \$7,000. The Commission limits the second mortgage to a maximum of \$2,000.

(See Savings Banks, page 306, for activities of the Savings Bank Division of the Rural and Industries Bank of Western Australia.)

Tasmania

Housing Department. The interest rate on purchase contract loans from the Housing Department signed after 1 May 1965 was $4\frac{1}{2}$ per cent, immediately prior to which the rate was 4 per cent. To be eligible for a house on purchase contract terms, an applicant must be married or about to be married, or have dependants for whom it is necessary to provide a home. Number of dependants, income, and existing accommodation are considered in determining applicants' priority. The number of loans outstanding at 30 June 1965 was 5,354, and the amount outstanding \$34,112,000.

Agricultural Bank of Tasmania. The Agricultural Bank, as an approved institution under the Commonwealth-State Housing Agreement, receives part of those funds allocated for advances to home builders. Prior to the commencement of the agreement, the Bank borrowed from the State Loan Fund and from private institutions. To be eligible for a loan, an applicant must be married or about to be married and be over the age of twenty-one, and when, as is usual, the advance is required to build a house, the applicant must own a block of land. The maximum amount of an advance to an applicant is \$7,000 for all types of houses in certain areas, provided that the total advance does not exceed ninety per cent of the Bank's valuation of land and dwelling. Advances to borrowers are repayable by equated instalments over thirty-one years. Advances made as from 1 July 1965 were at an interest rate of $5\frac{1}{4}$ per cent, immediately prior to which the rate was $5\frac{3}{4}$ per cent.

During 1964-65, 304 advances were approved, valued at \$2,108,000. Since November 1945 a total of 2,963 loans amounting to \$16,914,000 have been approved, of which 2,630 have been for erection of dwellings and 333 for the purchase of existing homes. Total advances outstanding at 30 June 1965 amounted to \$12,746,000. These figures exclude advances to building societies.

Commonwealth authorities and Territories

Department of Housing

In December 1963 the Department of Housing was created and to it were transferred the functions and staff of the War Service Homes Division and the Housing and Building Industry Branch of the Department of National Development. Further details relating to the Department of Housing may be found on page 83 of Year Book No. 50.

War service homes

The maximum amount of loan or advance which may be granted under the *War Service Homes Act* 1918-1962 is \$7,000. The period of repayment may be up to forty-five years. In the case of a widow or widowed mother of an Australian ex-serviceman, the period may be extended to a maximum of fifty years.

The following table gives details of advances under the War Service Homes Act in each State and Territory of Australia, and the Territories of Papua, New Guinea and Norfolk Island, for the years 1955-56 to 1964-65. (See tables on pages 292-3 for the number of homes provided.)

WAR SERVICE HOMES ACT: ADVANCES FOR HOUSING, STATES AND TERRITORIES, 1955-56 TO 1964-65

Period	N.S.W. (a)	Vic.	Qld (b)	S.A.	W.A.	Tas.	N.T.	A.C.T.	Total
TOTAL CAPITAL ADVANCED DURING YEAR (\$'000)									
1955-56 . . .	23,630	17,718	5,416	4,250	7,144	1,506	30	440	60,134
1956-57 . . .	22,596	19,360	4,642	4,792	7,090	1,368	12	482	60,342
1957-58 . . .	28,026	22,180	4,596	5,796	7,782	1,602	32	350	70,364
1958-59 . . .	31,026	21,748	5,430	4,850	5,168	1,780	30	286	70,318
1959-60 . . .	29,914	21,954	5,974	4,684	5,776	1,456	36	342	70,136
1960-61 . . .	32,330	18,040	6,422	4,792	6,980	1,224	44	252	70,084
1961-62 . . .	26,314	20,526	8,922	5,316	7,000	1,400	32	540	70,050
1962-63 . . .	27,200	21,000	9,900	6,470	7,960	1,550	30	910	75,020
1963-64 . . .	26,502	21,300	8,100	5,078	6,770	1,584	22	660	70,016
1964-65 . . .	27,680	19,874	8,540	5,510	6,500	1,486	2	512	70,104

NUMBER OF SECURITIES IN FORCE

At end of June—									
1956 . . .	25,455	31,408	16,747	11,968	11,108	2,476	31	395	99,588
1957 . . .	29,312	34,461	17,332	12,527	12,634	2,703	30	457	109,456
1958 . . .	34,081	37,446	17,835	13,119	13,442	2,932	32	512	119,399
1959 . . .	38,512	40,181	18,369	13,522	14,090	3,116	34	548	128,372
1960 . . .	43,029	42,913	18,876	13,897	14,856	3,259	41	603	137,474
1961 . . .	47,713	45,275	19,572	14,371	15,886	3,364	49	640	146,870
1962 . . .	51,445	47,827	20,712	14,947	16,806	3,538	53	710	156,038
1963 . . .	54,409	49,740	21,644	15,481	17,551	3,676	55	817	163,373
1964 . . .	56,619	51,188	22,237	15,718	18,005	3,827	57	872	168,523
1965 . . .	58,899	52,493	22,698	16,008	18,348	3,889	51	927	173,313

VALUE OF ADVANCES OUTSTANDING (\$'000)

At end of June—									
1956 . . .	89,416	110,554	54,964	40,286	41,804	8,518	(c)	(d)	345,542
1957 . . .	111,740	126,832	57,770	43,824	47,006	9,620	(c)	(d)	396,792
1958 . . .	136,338	145,384	60,412	48,358	54,584	10,782	(c)	(d)	455,858
1959 . . .	166,038	162,478	63,886	51,648	59,008	12,260	(c)	(d)	515,318
1960 . . .	192,586	178,760	67,384	54,468	63,286	13,246	(c)	(d)	569,730
1961 . . .	219,150	190,624	71,438	57,506	68,734	14,036	(c)	(d)	621,488
1962 . . .	239,702	205,290	78,146	61,020	73,994	14,894	(c)	(d)	673,046
1963 . . .	260,236	219,662	85,324	65,470	79,460	15,958	(c)	(d)	726,110
1964 . . .	278,856	233,648	90,326	67,900	83,364	16,976	(c)	(d)	771,070
1965 . . .	297,244	244,726	95,076	70,564	86,458	17,798	(c)	(d)	811,866

(a) Includes Norfolk Island. (b) Includes Territory of Papua and New Guinea. (c) Included in South Australia. (d) Included in New South Wales.

Northern Territory

Loans Scheme. This scheme was commenced in 1953 and is administered by the Commissioner for Housing under the *Housing Loans Ordinance* 1949-1959. Advances may be made for the erection of a house, the purchase or enlargement of an existing house, the completion of a partially erected dwelling, or the discharge of a mortgage already existing. Loans are provided on a deposit of 5 per cent of the first \$4,000 and 10 per cent of the balance of the Commissioner's valuation up to a maximum of \$7,000. The rate of interest charged is 6 per cent per annum reducible to 5 per cent per annum if instalment payments are made by the due date. The maximum period of repayment is forty-five years. Up to 30 June 1965, 1,083 loans totalling \$6,005,690 had been approved. These were for: erection, 714; purchase, 285; enlargement or completion, 34; discharge of mortgage, 50.

Sales Scheme. Tenants of government-owned houses under the control of the Administration may purchase the dwellings they occupy, either for cash or on terms requiring a minimum deposit of 5 per cent of the first \$4,000 and 10 per cent of the balance of the purchase price with repayments over a maximum period of forty-five years including interest at $4\frac{1}{2}$ per cent per annum.

Housing Commission Sales Scheme. Since the amendment of the *Housing Ordinance* 1959-1963 in November 1963 the Housing Commission is permitted to sell its houses to tenants in occupation. The terms require a minimum cash deposit of \$200 and repayment of the remainder of the loan over a period not exceeding forty-five years; there is no prescribed limit to the amount of the loan and the rate of interest is to be fixed by the Commission from time to time.

Australian Capital Territory

Loans may be granted by the Commissioner for Housing to enable persons to purchase or build a new house in the Australian Capital Territory. Where the Commissioner's valuation does not exceed \$4,000, the maximum loan may not exceed ninety-five per cent of the valuation. If the Commissioner's valuation exceeds \$4,000, the maximum loan is ninety-five per cent of the first \$4,000 and ninety per cent of the balance (but in no case can the amount lent exceed \$7,000). Repayment may be made over a maximum period of forty-five years. The current rate of interest is $4\frac{1}{2}$ per cent per annum. From 1 July 1950 to 30 June 1965, 3,002 loans were granted. At 30 June 1965, 2,827 houses were under mortgage to the Commissioner.

Government rental houses may be purchased by tenants. The basis of the sale is a minimum deposit of 5 per cent of the purchase price fixed by the Department of the Interior with no limit to the amount which may be held on mortgage from the Department. Repayment of the amount covered by mortgage may be made over a maximum period of forty-five years. The interest rate is $4\frac{1}{2}$ per cent per annum. From 1 July 1950 to 30 June 1965, 4,930 houses had been sold to tenants.

Papua and New Guinea

Under authority of the *Housing Loans Ordinance* 1953-1963 the Commissioner for Housing may make advances to any member of the community for the erection of a house, the purchase or enlargement of an existing house, the completion of a partially erected dwelling, or the discharge of a mortgage already existing. The maximum loan is \$7,000. The maximum period of repayment is thirty-five years for brick, stone or concrete and twenty-five years for all other materials. Minimum cash deposit is 5 per cent of the first \$4,000 plus 10 per cent of the remainder of the Commissioner's valuation. The effective rate of interest is 5 per cent per annum. Up to 30 June 1965, 293 loans totalling \$1,476,760 had been approved.

Savings banks

All savings banks lend funds for housing to both individuals and building societies. Separate figures of loans to individuals are not available for all savings banks. The amounts outstanding on housing loans of all savings banks (including loans to building societies) were \$794 million, \$298 million and \$1,186 million at the end of June 1963, 1964 and 1965 respectively. Some details in respect of three savings banks are shown below.

State Savings Bank of Victoria. The Bank grants long-term loans to depositors to enable them to build, purchase or improve homes. These loans are granted by both the Cr dit Foncier and Savings Bank Departments.

The maximum proportion of valuation to be granted as Cr dit Foncier loan is 80 per cent and the maximum loan is \$7,000. Interest is 5 per cent and the term of the loan is ten years, subject to renewal. The maximum proportion of valuation granted as Savings Bank Department loan is seventy-five per cent and the maximum loan is \$10,000. The interest rate is $5\frac{1}{2}$ per cent if the property is occupied by the borrower and $6\frac{1}{4}$ per cent in other cases. The term of the loan is three years, subject to renewal. During the year 1964-65 the Bank advanced \$51,869,576 to 9,118 borrowers in addition to \$815,252 to Co-operative Housing Societies and \$900,000 to the Home Finance Trust. At 30 June 1965 the total debt of 52,799 individual borrowers was \$232,890,810 while indebtedness of Co-operative Housing Societies and the Home Finance Trust amounted to \$18,689,866 and \$8,564,256 respectively.

Savings Bank of South Australia. The Bank grants mortgage loans for the building or purchase of houses for personal occupation, the maximum loan available being \$8,000 for all types of homes. Normally advances are made up to 85 per cent of the Bank's valuation but, if the loan is granted under the Homes Act, 1941-1962, 95 per cent of such valuation may be advanced (maximum loan, \$6,000). The maximum loan period is thirty years at a rate of interest of $5\frac{1}{4}$ per cent per annum; this rate is subject to review after five years. During 1964-65 the Bank advanced \$15,914,452 by way of housing loans, the number of new loans totalling 2,374. At 30 June 1965 there were 21,798 loans current with a balance outstanding of \$92,100,000.

Rural and Industries Bank of Western Australia (Savings Bank Division). The Rural and Industries Bank of Western Australia is authorized by the *Rural and Industries Bank Act, 1944-1958* to make loans from moneys on deposit with its Savings Bank Division to a person or body for the purchase or erection of a dwelling. It is the policy of the Bank to provide funds for housing primarily for occupancy by the borrower. There is no fixed limit on the amount of a loan. The average loan in the case of a brick or timber house is between \$6,000 and \$7,000. The rate of interest varies with the current bank rate and is usually $\frac{1}{2}$ per cent lower. The rate at 30 June 1965 was $5\frac{1}{2}$ per cent. The average term of housing loans is twenty-two years.

Trading banks

Apart from loans by certain State banks as Government agencies (see pp. 300-1 and 303) advances for housing to individuals are also provided by the trading banks. Amounts outstanding in respect of advances to individuals for housing purposes made by the major trading banks were \$220 million on the second Wednesday of July 1965 (see the chapter Private Finance for further details).

Life insurance companies

The life insurance companies are another source of funds for housing. Details of new loans made during 1963, 1964 and 1965 (statistics for years prior to 1963 are not available) are given in the following table.

LIFE INSURANCE COMPANIES: HOUSING LOANS PAID OVER, STATES AND TERRITORIES, 1963 TO 1965

State or Territory	Amount (\$'000)		
	1963	1964	1965
New South Wales	20,572	21,082	24,176
Victoria	13,152	16,176	18,642
Queensland(a)	3,430	4,480	5,753
South Australia(b)	3,368	3,744	5,108
Western Australia	2,262	2,964	3,778
Tasmania	1,418	1,546	1,547
Australian Capital Territory	340	594	869
Total	44,542	50,586	59,873

(a) Includes loans made in Papua and New Guinea.

(b) Includes loans made in Northern Territory.

Amounts outstanding at the end of June 1964 and 1965 in respect of housing loans made by insurance companies were \$323 million and \$339 million respectively.

Registered building societies

Including the Victorian Co-operative Housing Societies there are 3,162 registered building societies in Australia, of which 116 are permanent societies and the remainder terminating societies. The permanent societies are in the main investment societies which make loans for housing purposes, usually on credit financier terms, and obtain their funds from share capital deposits and borrowings from banks and other lending institutions. The terminating societies are co-operative societies which make loans to members from funds obtained from lending institutions (usually government guaranteed), members' subscriptions, and, since 1956, from moneys provided under the Commonwealth-State Housing Agreements. Details of new loans granted and net advances outstanding for each of the years ended June 1960 to 1964 are given in the following table (see also the chapter Private Finance).

REGISTERED BUILDING SOCIETIES, STATES, 1959-60 TO 1963-64

Year	N.S.W.	Victoria		Qld	S.A.	W.A.	Tas.	Total
		Co-operative housing societies (a)	Other building societies (b)					

LOANS GRANTED DURING YEAR (\$'000)

1959-60 . . .	41,120	n.a.	9,378	9,778	2,314	5,420	2,714	(c) 70,724
1960-61 . . .	47,404	n.a.	9,274	10,836	2,424	5,726	2,620	(c) 78,284
1961-62 . . .	48,738	21,174	7,682	12,646	2,246	6,346	2,988	101,820
1962-63 . . .	53,446	20,802	9,040	13,164	2,834	8,904	4,048	112,238
1963-64 . . .	72,284	21,060	9,818	13,184	3,102	11,700	6,000	137,148

NET ADVANCES OUTSTANDING(d) AT END OF YEAR (\$'000)

1959-60 . . .	248,792	110,832	38,512	26,986	8,652	17,202	9,612	460,588
1960-61 . . .	269,780	124,286	41,138	33,488	9,994	20,506	10,636	509,828
1961-62 . . .	292,898	132,846	42,314	41,272	11,114	25,158	12,210	557,812
1962-63 . . .	317,222	145,460	44,006	48,776	12,532	31,240	14,466	613,702
1963-64 . . .	351,840	154,846	44,856	55,542	13,966	39,168	17,800	678,018

(a) Year ended 30 April. (b) Year ended 31 December. (c) Excludes Victorian co-operative housing societies. (d) Net of borrowing members' funds.

Other lenders

Little information is available on advances made by other lenders such as superannuation and other trust funds, private finance and investment companies, etc. In South Australia advances on first mortgage made by the South Australian Superannuation Fund are granted under the Homes Act, 1941-1962, by which the State Government guarantees up to 25 per cent of the value of the mortgage, thus raising the limit of the advance. Loans so made are limited to 95 per cent of the Superannuation Board's valuation to a maximum of \$6,000, or 85 per cent of the Board's valuation to a maximum of \$7,000. The rate of interest is 6 per cent per annum, calculated on quarterly balances, reducing to 5½ per cent when payments are made within a prescribed period of twenty-one days from the end of the quarter. The term of the mortgage may run for thirty years on a stone or brick home or twenty years on a timber-framed construction. Trustee mortgages may be granted as an alternative to the foregoing. A maximum of 70 per cent of the Board's valuation may be granted for a trustee mortgage, other conditions being those applicable to mortgages granted under the Homes Act. At 30 June 1965 there were 5,219 loans current, the principal outstanding totalling \$19,726,568. During 1964-65 the value of advances made was \$3,679,906.

CHAPTER 11

EMPLOYMENT AND UNEMPLOYMENT

Further detail on subjects dealt with in this chapter is contained in the *Labour Report* and other publications of this Bureau. For subjects relating to population censuses reference should be made to the series of mimeographed and printed publications listed in the chapter Miscellaneous of this Year Book. Detailed information on employment and unemployment and the Work Force Survey is contained in the monthly mimeographed bulletin *Employment and Unemployment*. Current information is also available in the *Monthly Review of Business Statistics*, the *Digest of Current Economic Statistics*, and the *Quarterly Summary of Australian Statistics*, and preliminary estimates of civilian employment are issued in a monthly statement *Wage and Salary Earners in Civilian Employment*.

THE WORK FORCE

The work force comprises two categories of persons: those who are employed and those who are unemployed. In the first category are included employers, self-employed persons, wage and salary earners, and unpaid helpers. Comprehensive details for each State and Territory and for Australia as a whole in respect of persons in the work force, classified according to characteristics such as age, sex, conjugal condition, industry, occupational status and occupation, are obtained only at a general census of population. Quarterly estimates of the civilian work force are derived from the results of surveys of a sample of households selected by area sampling methods. Estimates are at present available only for the six State capital cities combined. A summary of the information about the work force that was obtained at the population census of June 1961 and earlier censuses is given on pages 308-16. Estimates derived from the quarterly work force surveys appear on pages 318 *et seq.*

Population censuses*

Occupational status

Occupational status of persons classified as in the work force at population census dates covers two broad groups: those at work and those not at work. The first group comprises employers, self-employed persons, employees (on wage or salary) and unpaid helpers. The category 'not at work' includes those who stated that they were usually engaged in work, but were not actively seeking a job at the time of the census by reason of sickness, accident, etc., or because they were on strike, changing jobs, or temporarily laid off, etc. It also includes persons able and willing to work but unable to secure employment, as well as casual and seasonal workers not actually in a job at the time of the census. The numbers shown as 'not at work' in the following tables, therefore, do not represent the number of unemployed available for work and unable to obtain it.

The tables following show the occupational status of the population of Australia at the 1954 and 1961 censuses and of the States and Territories at the 1961 census.

OCCUPATIONAL STATUS OF THE POPULATION: AUSTRALIA, CENSUSES, 1954 AND 1961

Occupational status	Census, 30 June 1954			Census, 30 June 1961			Increase 1954-61
	Males	Females	Persons	Males	Females	Persons	
In work force—							
At work—							
Employer	220,878	30,104	250,982	224,369	42,712	267,081	16,099
Self-employed	359,617	51,583	411,200	350,111	62,704	412,815	1,615
Employee(a)	2,216,681	739,802	2,956,483	2,449,132	901,902	3,351,034	394,551
Helper(b)	18,430	9,913	28,343	13,689	7,871	21,560	-6,783
Total at work	2,815,606	831,402	3,647,008	3,037,301	1,015,189	4,052,490	405,482
Not at work(c)	41,014	14,000	55,014	128,626	43,980	172,606	117,592
Total in work force	2,856,620	845,402	3,702,022	3,165,927	1,059,169	4,225,096	523,074
Not in work force	1,689,498	3,595,010	5,284,508	2,146,325	4,136,765	6,283,090	998,582
Grand total	4,546,118	4,440,412	8,986,530	5,312,252	5,195,934	10,508,186	1,521,656

(a) On wage or salary. (b) Not on wage or salary. (c) See explanation above.
Minus sign (—) denotes decrease

* Particulars of full-blood Aboriginals are not included in the tables in this section.

OCCUPATIONAL STATUS OF THE POPULATION: STATES AND TERRITORIES
CENSUS, 30 JUNE 1961

Occupational status	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia
In work force—									
At work—									
Employer	95,651	73,103	43,469	24,213	20,521	8,221	897	1,006	267,081
Self-employed	138,571	120,867	67,806	40,978	29,784	13,191	723	895	412,815
Employee(a)	1,298,143	958,258	438,947	298,688	217,692	104,717	12,144	22,445	3,351,014
Helper(b)	6,452	5,923	4,833	1,952	1,624	699	55	22	21,560
Total at work	1,538,817	1,158,151	555,055	365,831	269,621	126,828	13,819	24,368	4,052,490
Not at work(c)	63,699	51,912	29,941	11,730	10,163	4,090	424	647	172,636
Total in work force	1,602,516	1,210,063	584,996	377,561	279,784	130,918	14,243	25,015	4,225,096
Not in work force	2,314,497	1,720,050	933,832	591,779	456,845	219,422	12,852	33,813	6,283,070
Grand total	3,917,013	2,930,113	1,518,828	969,340	736,629	350,340	27,095	58,828	10,508,186

(a) On wage or salary. (b) Not on wage or salary. (c) See explanation on page 308.

Particulars of males and females in the Australian work force classified by occupational status and industry are given on page 312, and pages 407–10 of Year Book No. 50 contain tables showing males and females at the census of 30 June 1961, classified according to occupational status in conjunction with age and conjugal condition. This information may also be found in Labour Report No. 50, 1962 and 1963, pages 150–3.

Persons not at work

The total number of persons 'not at work' has been recorded only at the dates of the various censuses. Since the 1947 census this category has included all persons (usually engaged in industry, business, trade, profession or service) who were out of a job and not at work at the time of the census for whatever reason, including any not normally associated with unemployment. The following table shows the numbers recorded as 'not at work' at the censuses of 30 June 1947, 1954 and 1961, classified according to cause. As explained on page 308, the totals shown as 'not at work' do not represent the number of unemployed available for work and unable to obtain it.

**PERSONS NOT AT WORK(a), BY CAUSE: AUSTRALIA
CENSUSES, 1947, 1954 AND 1961**

Census	Unable to secure employment	Temporarily laid off	Illness	Accident	Industrial dispute	Other (b)	Total
Males—							
1947 . . .	17,314	12,458	14,639	2,985	475	18,743	66,614
1954 . . .	9,912	4,423	11,879	2,804	344	11,652	41,014
1961 . . .	83,945	11,930	13,684	6,152	540	12,375	128,626
Females—							
1947 . . .	2,254	2,449	4,396	280	24	7,512	16,915
1954 . . .	3,685	1,386	4,310	318	17	4,284	14,000
1961 . . .	27,562	3,939	5,821	773	199	5,686	43,980
Persons—							
1947 . . .	19,568	14,907	19,035	3,265	499	26,255	83,529
1954 . . .	13,597	5,809	16,189	3,122	361	15,936	55,014
1961 . . .	111,507	15,869	19,505	6,925	739	18,061	172,606

(a) Persons in the work force who were 'not at work' (see explanation on page 308) at the time of the census. (b) The majority of these persons were resting between jobs or changing jobs.

Industry

For census purposes, industry may be defined as any single branch of productive activity, trade or service. All persons engaged in any such branch of economic activity are classified industrially as belonging to that particular branch, irrespective of their personal occupations within the industry. Thus a single firm may employ persons performing completely different occupations in order to make a particular product, or to render a particular service, but the industrial classification of each of these persons is determined by the nature of the product made or of the service rendered by the firm that employs him.

The following table shows the number of persons in the work force in each industry group and sub-group at the censuses of 1954 and 1961. The figures include those at work and those not at work.

INDUSTRY OF THE POPULATION: AUSTRALIA, CENSUSES, 1954 AND 1961

Industry group and sub-group	Census, 30 June 1954			Census, 30 June 1961			Increase or decrease (—) 1954-61
	Males	Females	Persons	Males	Females	Persons	
Primary production—							
Fishing	8,451	115	8,566	8,124	128	8,252	— 314
Hunting and trapping	1,552	11	1,563	1,361	14	1,375	— 188
Rural industries	435,933	31,890	467,823	396,519	38,892	435,411	— 32,412
Forestry	15,279	67	15,346	13,725	122	13,847	— 1,499
Total, primary production	461,215	32,083	493,298	419,729	39,156	458,885	— 34,413
Mining and quarrying—							
Mining (including open-cut mining)	55,327	909	56,236	46,220	1,174	47,394	— 8,842
Quarrying	4,983	152	5,135	6,721	286	7,007	1,872
Total, mining and quarrying	60,310	1,061	61,371	52,941	1,460	54,401	— 6,970
Manufacturing—							
Cement, bricks, glass and stone	40,012	3,104	43,116	44,455	3,856	48,311	5,195
Products of petroleum and coal (excluding chemical and gas works)	3,234	190	3,424	6,239	430	6,669	3,245
Founding, engineering and metal-working	229,431	32,305	261,736	286,093	45,756	331,849	70,113
Ships, vehicles, parts and accessories	132,653	6,463	139,116	132,435	8,345	140,780	1,664
Yarns, textiles and articles thereof (excluding clothing and furnishing drapery)	29,620	26,243	55,863	29,009	24,501	53,510	— 2,353
Clothing and knitted goods (including needleworking)	23,144	73,367	96,511	20,285	69,382	89,667	— 6,844
Boots, shoes and accessories (other than rubber)	17,123	10,228	27,351	15,252	10,011	25,263	— 2,088
Food, drink and tobacco	117,088	27,927	145,015	121,983	31,911	153,894	8,879
Sawmilling and wood products (other than furniture)	53,252	2,136	55,388	49,759	2,452	52,211	— 3,177
Furniture and fittings (other than metal), bedding and furnishing drapery	23,646	2,515	26,161	22,923	3,394	26,317	156
Paper and paper products, printing, bookbinding and photography	53,953	18,770	72,723	67,443	22,994	90,437	17,714
Chemicals, dyes, explosives, paints and non-mineral oils	31,046	9,423	40,469	38,571	11,955	50,526	10,057
Jewellery, watchmaking, electroplating and minting	6,491	1,275	7,766	6,098	1,163	7,261	— 505
Skins and leather; goods of leather and leather substitutes (other than clothing or footwear)	9,044	2,903	11,947	6,931	2,632	9,563	— 2,384
Rubber goods	14,912	3,354	18,266	18,076	3,828	21,904	3,638
Musical, surgical and scientific instruments and apparatus	4,301	1,291	5,592	5,894	2,414	8,308	2,716
Plastic products (n.e.i.)	4,211	1,842	6,053	7,072	3,443	10,515	4,462
Other	5,710	2,893	8,603	5,752	2,894	8,646	43
Undefined	1,397	834	2,231	2,857	1,847	4,704	2,473
Total, manufacturing	800,268	227,063	1,027,331	887,127	253,208	1,140,335	113,004
Electricity, gas, water and sanitary services (production, supply and maintenance)—							
Gas and electricity	50,998	3,440	54,438	60,858	4,538	65,396	10,958
Water supply, sewerage, etc	18,556	656	19,212	27,809	1,106	28,915	9,703
Total, electricity, etc., services	69,554	4,096	73,650	88,667	5,644	94,311	20,661
Building and construction—							
Construction and repair of buildings	196,205	2,452	198,657	229,280	5,237	234,517	35,860
Construction works (other than buildings)	125,624	1,341	126,965	135,812	2,002	137,814	10,849
Total, building and construction	321,829	3,793	325,622	365,092	7,239	372,331	46,709
Transport and storage—							
Road transport	91,515	4,349	95,864	104,948	7,166	112,114	16,250
Shipping	27,955	1,971	29,926	27,538	2,318	29,856	— 70
Loading and discharging vessels	27,950	209	28,159	25,892	279	26,171	— 1,988
Rail and air transport	91,691	8,031	99,722	91,166	8,349	99,515	— 207
Storage	1,475	139	1,614	1,689	155	1,844	230
Total, transport and storage	240,586	14,699	255,285	251,233	18,267	269,500	14,215

INDUSTRY OF THE POPULATION
AUSTRALIA, CENSUSES, 1954 AND 1961—continued

Industry group and sub-group	Census, 30 June 1954			Census, 30 June 1961			Increase or decrease (-) 1954-61
	Males	Females	Persons	Males	Females	Persons	
Communication	63,802	16,748	80,550	75,294	18,522	93,816	13,266
Finance and property—							
Banking	30,746	12,159	42,905	38,564	20,600	59,164	16,259
Insurance	18,078	13,066	31,144	25,422	19,807	45,229	14,085
Other finance and property	12,664	7,500	20,164	22,288	14,464	36,752	16,588
Total, finance and property	61,488	32,725	94,213	86,274	54,871	141,145	46,932
Commerce—							
Wholesale trade	123,107	34,594	157,701	146,362	42,614	188,976	31,275
Livestock and primary produce dealing, etc.	25,701	5,387	31,088	29,121	6,449	35,570	4,482
Retail trade	238,660	149,932	388,592	276,234	185,986	462,220	73,628
Total, commerce	387,468	189,913	577,381	451,717	235,049	686,766	109,385
Public authority (n.e.i.) and defence services—							
Public authority activities (n.e.i.)	72,070	25,568	97,638	84,232	29,986	114,218	16,580
Defence: enlisted personnel	44,798	1,888	46,686	42,226	1,780	44,006	- 2,680
Defence: civilian employees	9,972	2,215	12,187	9,361	2,168	11,529	- 658
Total, public authority (n.e.i.), etc.	126,840	29,671	156,511	135,819	33,934	169,753	13,242
Community and business services (including professional)—							
Law, order and public safety	25,974	8,209	34,183	33,124	12,235	45,359	11,176
Religion and social welfare	12,830	9,821	22,651	15,033	12,610	27,643	4,992
Health, hospitals, etc.	35,504	75,888	111,392	43,047	106,522	149,569	38,177
Education	39,672	51,851	91,523	58,357	76,096	134,453	42,930
Other	22,532	12,556	35,088	32,665	20,444	53,109	18,021
Total, community and business services	136,512	158,325	294,837	182,226	227,907	410,133	115,296
Amusement, hotels and other accommodation, cafés, personal service, etc.—							
Amusement, sport and recreation	27,525	9,697	37,222	31,309	10,851	42,160	4,938
Private domestic service	6,703	30,763	37,466	5,773	26,919	32,692	- 4,774
Hotels, boarding houses, etc., and restaurants	43,525	65,087	108,612	50,824	70,561	121,385	12,773
Other personal services	21,250	19,939	41,189	24,622	27,277	51,899	10,710
Total, amusement, hotels, etc.	99,003	125,486	224,489	112,528	135,608	248,136	23,647
Other industries	34	22	56	69	75	144	88
Industry inadequately described or not stated	27,711	9,717	37,428	57,211	28,229	85,440	48,012
Total in work force	2,856,620	845,402	3,702,022	3,165,927	1,059,169	4,225,096	523,074
Not in work force	1,689,498	3,595,010	5,284,508	2,146,325	4,136,765	6,283,090	998,582
Grand total	4,546,118	4,440,412	8,986,530	5,312,252	5,195,934	10,508,186	1,521,656

Details of individual industries within the foregoing sub-groups, by sex, are published for each State and Territory and for Australia as a whole in the mimeographed 1961 *Census Bulletin* No. 29 and in the respective parts of the census volumes.

Industry and occupational status

Males and females in the work force at the 1961 census are classified in the following table according to industry and occupational status. Only the major industry groups are shown in this table; particulars for each sub-group are available in the mimeographed 1961 *Census Bulletin* No. 34 and in the respective parts of the printed census volumes.

PERSONS IN THE WORK FORCE, BY INDUSTRY AND OCCUPATIONAL STATUS
AUSTRALIA, CENSUS, 30 JUNE 1961

Industry group	At work					Not at work (c)	Total in the work force
	Em- ployer	Self- em- ployed	Em- ployee (a)	Helper (b)	Total		

MALES							
Primary production	57,374	198,774	139,130	11,273	406,551	13,178	419,729
Mining and quarrying	566	1,441	49,214	43	51,264	1,677	52,941
Manufacturing	29,140	21,550	805,857	277	856,824	30,303	887,127
Electricity, gas, water and sanitary services	320	281	87,301	5	87,907	760	88,667
Building and construction	29,611	31,071	282,216	197	343,095	21,997	365,092
Transport and storage	10,422	23,630	210,617	136	244,805	6,428	251,233
Communication	83	261	74,407	13	74,764	530	75,294
Finance and property	3,655	3,641	78,220	59	85,575	699	86,274
Commerce	54,477	44,261	341,343	715	440,796	10,921	451,717
Public authority (n.e.i.) and defence services . . . . .	..	..	135,126	..	135,126	693	135,819
Community and business services (including professional)	19,945	7,243	153,354	208	180,750	1,476	182,226
Amusement, hotels and other accommodation, cafés, personal service, etc.	18,048	16,094	73,602	490	108,234	4,294	112,528
Other industries	7	19	38	1	65	4	69
Industry inadequately described or not stated	721	1,845	18,707	272	21,545	35,666	57,211
Total males in the work force	224,369	350,111	2,449,132	13,689	3,037,301	128,626	3,165,927

FEMALES

Primary production	9,552	18,599	7,650	3,023	38,824	332	39,156
Mining and quarrying	22	18	1,406	1	1,447	13	1,460
Manufacturing	4,367	3,674	233,682	359	242,082	11,126	253,208
Electricity, gas, water and sanitary services	22	3	5,598	1	5,624	20	5,644
Building and construction	958	270	5,880	32	7,140	99	7,239
Transport and storage	865	630	16,573	40	18,108	159	18,267
Communication	32	152	18,063	20	18,267	255	18,522
Finance and property	324	434	53,713	47	54,518	353	54,871
Commerce	15,097	18,106	194,517	1,901	229,621	5,428	235,049
Public authority (n.e.i.) and defence services . . . . .	..	..	33,700	..	33,700	234	33,934
Community and business services (including professional)	1,989	3,616	217,954	707	224,266	3,641	227,907
Amusement, hotels and other accommodation, cafés, personal service, etc.	9,256	16,790	102,479	1,547	130,072	5,536	135,608
Other industries	12	24	33	1	70	5	75
Industry inadequately described or not stated	216	388	10,654	192	11,450	16,779	28,229
Total females in the work force	42,712	62,704	901,902	7,871	1,015,189	43,980	1,059,169

(a) On wage or salary. (b) Not on wage or salary. (c) See explanation on page 308.

Married women in the work force

At the 1961 census 444,680 married women (including 39,148 women who were married but permanently separated, legally or otherwise) were recorded as being in the work force. This represented 42 per cent of the total number of females in the work force. At the 1954 census the corresponding percentage was 34.3. Between 1954 and 1961 there was an increase of 154,748 or 53.4 per cent in the number of married women in the work force compared with an increase of 213,767 or 25.3 per cent in total females in the work force. The largest increase (both numerical and proportional) in any age group was for married women aged 35-39 years, where the increase in the seven years 1954 to 1961 was almost 82 per cent.

**MARRIED WOMEN IN THE WORK FORCE
ACCORDING TO AGE: AUSTRALIA
CENSUSES, 1954 AND 1961**

Age last birthday (years)	Married women in the work force(a)		Increase, 1954-61	
	Census, 30 June 1954(b)	Census, 30 June 1961(c)	Number	Per cent
15-19 . . .	3,549	5,570	2,021	56.95
20-24 . . .	35,452	51,003	15,551	43.86
25-29 . . .	43,899	49,536	5,637	12.84
30-34 . . .	43,320	59,025	15,705	36.25
35-39 . . .	41,046	74,660	33,614	81.89
40-44 . . .	42,265	67,695	25,430	60.17
45-49 . . .	33,492	59,745	26,253	78.39
50-54 . . .	23,346	41,142	17,796	76.23
55-59 . . .	13,539	22,415	8,876	65.56
60-64 . . .	6,609	9,342	2,733	41.35
65 and over . . .	3,415	4,547	1,132	33.15
Total . . .	289,932	444,680	154,748	53.37

(a) Includes women married but permanently separated, legally or otherwise. (b) The figures shown for 1954 include an allowance for the number of women whose conjugal condition was not stated. (c) A conjugal condition was allocated prior to tabulation in all instances where this information was not stated.

Occupation

The working population may be classified according to distinct concepts—(i) the *occupation*, which is personal to the individual, and (ii) the *industry*, in which the individual carries on his occupation. Thus the *occupation* of a person is the kind of work that he or she personally performs, while *industry* is defined as any single branch of productive activity, trade or service. Particulars of the work force classified according to industry are given on pages 310-12 of this section; pages 314-16 contain particulars of the principal occupation groups (major and minor) of the work force at the census of 30 June 1961. Details of individual categories of occupations are published in the mimeographed 1961 *Census Bulletin* No. 32 and in the respective parts of the census volumes.

The following table shows, for Australia, the numbers of males, females and persons in the work force in each of the principal occupation groups at the 1961 census. Data of this type were last obtained at the 1947 census, but a comparison of the figures derived therefrom with those shown below is not possible because of differences in classification. Only those persons regarded as being in the work force are classified according to occupation. Corresponding details for persons in each State and Territory are given in Year Book No. 50, pages 415-16 and in *Labour Report* No. 50, 1962 and 1963, pages 158-9.

OCCUPATIONS OF THE POPULATION: AUSTRALIA, CENSUS, 30 JUNE 1961

Occupation group	Males	Females	Persons
Professional, technical and related workers—			
Architects, engineers and surveyors	29,526	155	29,681
Chemists, physicists, geologists and other physical scientists	7,759	585	8,344
Biologists, veterinarians, agronomists and related scientists	3,920	320	4,240
Medical practitioners and dentists	13,910	1,483	15,393
Nurses	3,866	59,955	63,821
Professional medical workers, n.e.c., and medical technicians	9,497	4,830	14,327
Teachers	44,601	56,722	101,323
Clergy and related members of religious orders	10,938	3,120	14,058
Law professionals	6,478	258	6,736
Artists, entertainers, writers and related workers	15,369	6,860	22,229
Draftsmen and technicians, n.e.c.	37,152	6,826	43,978
Other professional, technical and related workers	24,430	5,498	29,928
Total professional, etc., workers	207,446	146,612	354,058
Administrative, executive and managerial workers—			
Administrators and executive officials, government, n.e.c.	11,314	110	11,424
Employers, workers on own account, directors and managers, n.e.c.	243,230	43,228	286,458
Total administrative, etc., workers	254,544	43,338	297,882
Clerical workers—			
Book-keepers and cashiers	23,880	20,108	43,988
Stenographers and typists . . . . .	..	125,511	125,511
Other clerical workers	217,365	161,201	378,566
Total clerical workers	241,245	306,820	548,065
Sales workers—			
Insurance, real estate salesmen, saleswomen, auctioneers and valuers	11,494	657	12,151
Commercial travellers and manufacturers' agents	34,521	617	35,138
Proprietors and shop-keepers working on own account, n.e.c., retail and wholesale trade, salesmen, saleswomen, shop assistants and related workers	142,028	133,401	275,429
Total sales workers	188,043	134,675	322,718
Farmers, fishermen, hunters, timber getters and related workers—			
Farmers and farm managers	257,929	28,599	286,528
Farm workers, n.e.c.	149,792	8,212	158,004
Wool classers	2,949	..	2,949
Hunters and trappers	1,504	4	1,508
Fishermen and related workers	7,452	72	7,524
Timber getters and other forestry workers	13,669	..	13,669
Total farmers, etc.	433,295	36,887	470,182
Miners, quarrymen and related workers—			
Miners and quarrymen	30,434	15	30,449
Well drillers and related workers	1,060	..	1,060
Mineral treaters	1,674	..	1,674
Total miners, quarrymen, etc.	33,168	15	33,183

OCCUPATIONS OF THE POPULATION: AUSTRALIA
CENSUS, 30 JUNE 1961—*continued*

Occupation group	Males	Females	Persons
Workers in transport and communication occupations—			
Deck officers, engineer officers and pilots, ship	4,253	13	4,266
Deck and engine room hands, ship; barge crews and boatmen	11,633	..	11,633
Aircraft pilots, navigators and flight engineers	1,750	6	1,756
Drivers and firemen, railway	14,391	..	14,391
Drivers, road transport	146,320	528	146,848
Guards and conductors, railway	4,215	..	4,215
Inspectors, supervisors, traffic controllers and despatchers, transport	20,781	892	21,673
Telephone, telegraph and related telecommunication operators	3,050	19,508	22,558
Postmasters, postmistresses, postmen and messengers	23,717	3,236	26,953
Workers in transport and communication occupations, n.e.c.	13,673	1,653	15,326
Total workers in transport, etc.	243,783	25,836	269,619
Craftsmen, production-process workers and labourers, n.e.c.—			
Spinners, weavers, knitters, dyers and related workers	16,534	21,210	37,744
Tailors, cutters, furriers and related workers	18,149	64,722	82,871
Leather cutters, lasters and sewers (except gloves and garments) and related workers	15,147	9,962	25,109
Furnacemen, rollers, drawers, moulders and related metal making and treating workers	20,774	..	20,774
Precision instrument makers, watchmakers, jewellers and related workers	11,493	767	12,260
Toolmakers, machinists, plumbers, welders, platers and related workers	319,163	5,281	324,444
Electricians and related electric and electronic workers	104,474	1,262	105,736
Metal makers, metal workers and electrical production-process workers, n.e.c.	51,148	16,660	67,808
Carpenters, joiners, cabinetmakers and related workers	137,318	1,356	138,674
Painters and decorators	46,555	394	46,949
Bricklayers, plasterers and construction workers, n.e.c.	92,184	..	92,184
Compositors, pressmen, engravers, bookbinders and related workers	30,994	6,759	37,753
Potters, kilnmen, glass and clay formers and related workers	10,489	1,261	11,750
Millers, bakers, brewmasters and related food and beverage workers	80,744	12,652	93,396
Chemical and related process workers	16,313	3,430	19,743
Tobacco preparers and tobacco product makers	1,147	1,472	2,619
Craftsmen and production-process workers, n.e.c.	26,939	11,794	38,733
Packers, labellers and related workers	7,238	14,734	21,972
Stationary engine, excavating, lifting equipment operators and related workers	55,718	..	55,718
Waterside workers and related freight handlers	93,376	1,398	94,774
Labourers, n.e.c.	203,048	..	203,048
Total craftsmen, etc.	1,358,945	175,114	1,534,059

OCCUPATIONS OF THE POPULATION: AUSTRALIA
CENSUS, 30 JUNE 1961—continued

Occupation group	Males	Females	Persons
Service, sport and recreation workers—			
Fire brigade men, policemen, policewomen, protective service and related workers	31,617	473	32,090
Housekeepers, cooks, maids and related workers	17,770	87,675	105,445
Waiters, waitresses, bartenders	13,701	22,224	35,925
Building caretakers, cleaners	26,127	19,169	45,296
Barbers, hairdressers, beauticians and related workers	9,291	13,355	22,646
Launderers, dry cleaners and pressers	6,992	11,304	18,296
Athletes, sportsmen and related workers	3,215	199	3,414
Photographers and related camera operators	2,981	680	3,661
Embalmers and undertakers	736	..	736
Service, sport, recreation workers, n.e.c.	18,083	12,108	30,191
Total service, etc., workers	130,513	167,187	297,700
Members of armed services, enlisted personnel	42,226	1,780	44,006
Occupation inadequately described or not stated	32,719	20,905	53,624
Total in work force	3,165,927	1,059,169	4,225,096
Not in work force	2,146,325	4,136,765	6,283,090
Grand total	5,312,252	5,195,934	10,508,186

PROPORTION OF THE WORK FORCE IN EACH OCCUPATION GROUP
AUSTRALIA, CENSUS, 30 JUNE 1961

Major occupation group	Proportion of total (per cent)		
	Males	Females	Persons
Professional, technical and related workers	6.6	13.8	8.4
Administrative, executive and managerial workers	8.1	4.1	7.1
Clerical workers	7.6	29.0	13.0
Sales workers	5.9	12.7	7.6
Farmers, fishermen, hunters, timber getters and related workers	13.7	3.5	11.1
Miners, quarrymen and related workers	1.1	..	0.8
Workers in transport and communication occupations	7.7	2.4	6.4
Craftsmen, production-process workers and labourers, n.e.c.	42.9	16.5	36.3
Service, sport and recreation workers	4.1	15.8	7.0
Members of armed services, enlisted personnel	1.3	0.2	1.0
Occupation inadequately described or not stated	1.0	2.0	1.3
Total in work force	100.0	100.0	100.0

The work force survey

Estimates of the civilian work force are obtained in February, May, August and November of each year for the six State capital cities from surveys based on a sample of dwellings selected by area sampling methods. These surveys are currently in process of extension to non-metropolitan areas.

The survey information, which is obtained at sample dwellings by personal interview, enables the total civilian population fourteen years of age and over to be classified according to work force and demographic characteristics. The work force classification used conforms closely to that recommended by the Eighth International Conference of Labour Statisticians, Geneva, 1954. Under this classification the category to which an individual is assigned depends on his actual activity or status (i.e. whether working, looking for work, etc.) during a specified week covered by the survey.

The principal categories in the following tables are the employed and the unemployed, which together constitute the total work force, and the remainder, comprising persons who are not in the work force. Details of these categories are as follows.

- (a) *Employed persons* comprise all those who, during the specified week, worked for pay, profit, or payment in kind, in a job or business, or on a farm, and those who had a job, business, or farm, but were temporarily absent for the whole of the specified week for reasons other than lack of work. Persons who worked as unpaid helpers in a family business or on a farm are included in the employed if they worked fifteen hours or more during the specified week. The category includes employees, employers and self-employed persons.
- (b) *Unemployed persons* comprise all those who, during the specified week, did no work at all, did not have a job or business, and were actively looking for work. The category also includes persons absent from work for the whole of the specified week without pay because of lack of demand for their services (i.e. those laid off without pay for the whole of the specified week).
- (c) *The work force* consists of all persons who, during the specified week, were employed or unemployed in terms of the classifications given in (a) and (b) above.
- (d) *Persons not in the work force* are those who, during the specified week, were not classified as employed or unemployed in terms of the classifications given in (a) and (b) above.

Figures in the tables which follow are estimates based on a sample and are therefore subject to sampling variability, that is, variations that may occur by chance because only a sample of the population is enumerated in the surveys. For this reason, figures are rounded but not adjusted to add to totals, because such adjustments would, in some cases, exceed the sampling variability of the estimates and tend to destroy their value as indicators of movement.

Occupational status, and work force participation and unemployment rates

The following table shows, for November in each of the years 1961 to 1965, the distribution, by major work force category, of the civilian population fourteen years of age and over in the six State capital cities. The table also shows changes in the work force participation rate and unemployment rate over the period. As indicated in the general notes above, the classification of the population by work force category conforms to the standard recommended by the International Conference of Labour Statisticians. This International Standard was not adopted for population censuses prior to the census of 1966, and consequently the figures in this table are not strictly comparable with those in the tables in the preceding section of this chapter.

**CIVILIAN POPULATION 14 YEARS OF AGE AND OVER: OCCUPATIONAL STATUS
AND WORK FORCE PARTICIPATION AND UNEMPLOYMENT RATES, SIX
AUSTRALIAN STATE CAPITAL CITIES, NOVEMBER 1961 TO 1965**

November—	Occupational status				Total civilian popu- lation 14 years of age and over	Work force parti- cipation rate (b)	Unem- ployment rate (c)
	Civilians in the work force			Civilians not in the work force			
	Employed (a)	Un- employed	Total				
Males—	'000	'000	'000	'000	'000	per cent	per cent
1961 . .	1,689.0	38.2	1,727.1	385.4	2,112.5	81.8	2.2
1962 . .	1,731.5	24.2	1,755.6	396.0	2,151.7	81.6	1.4
1963 . .	1,764.2	18.6	1,782.8	414.5	2,197.3	81.1	1.0
1964 . .	1,807.8	12.9	1,820.8	429.4	2,250.2	80.9	0.7
1965 . .	1,853.0	18.5	1,871.5	437.5	2,309.0	81.1	1.0
Females—							
1961 . .	749.4	21.6	771.0	1,465.7	2,236.7	34.5	2.8
1962 . .	790.1	17.8	808.0	1,477.8	2,285.8	35.3	2.2
1963 . .	808.9	11.5	820.4	1,515.4	2,335.8	35.1	1.4
1964 . .	837.1	13.6	850.7	1,543.7	2,394.4	35.5	1.6
1965 . .	888.2	17.7	905.9	1,548.1	2,454.0	36.9	2.0
Persons—							
1961 . .	2,438.4	59.7	2,498.1	1,851.1	4,349.3	57.4	2.4
1962 . .	2,521.6	42.0	2,563.6	1,873.8	4,437.4	57.8	1.6
1963 . .	2,573.1	30.1	2,603.2	1,929.9	4,533.1	57.4	1.2
1964 . .	2,644.9	26.5	2,671.5	1,973.1	4,644.5	57.5	1.0
1965 . .	2,741.2	36.2	2,777.4	1,985.6	4,763.0	58.3	1.3

(a) Includes employees, employers, self-employed persons, and unpaid helpers who worked 15 hours or more a week in a family business. (b) The civilian work force as a percentage of the civilian population 14 years of age and over. (c) The number unemployed as a percentage of the civilian work force.

Occupational status and age distribution

The following table shows the civilian population fourteen years of age and over in the six State capital cities at November in each of the years 1961 to 1965, classified according to occupational status and age distribution.

**CIVILIAN POPULATION 14 YEARS OF AGE AND OVER: OCCUPATIONAL STATUS
AND AGE DISTRIBUTION, BY SEX, SIX AUSTRALIAN STATE CAPITAL CITIES
NOVEMBER 1961 TO 1965**

('000)

Age group (years)	Occupational status of civilians in the work force						Civilians not in the work force		Total civilians 14 years of age and over	
	Employed(a)		Unemployed		Total in civilian work force					
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
November 1961—										
14-19 .	148.9	148.8	7.4	7.0	156.2	155.8	132.0	131.0	288.3	286.8
20-44 .	954.4	400.0	19.9	10.6	974.3	410.6	34.4	583.3	1,008.7	993.9
45-64 .	539.3	187.3	9.3	*	548.6	191.1	51.2	439.3	599.8	630.4
65 and over	46.4	13.3	*	*	48.0	13.5	167.8	312.1	215.8	325.6
Total .	1,689.0	749.4	38.2	21.6	1,727.1	771.0	385.4	1,465.7	2,112.5	2,236.7

For footnotes see next page.

CIVILIAN POPULATION 14 YEARS OF AGE AND OVER: OCCUPATIONAL STATUS AND AGE DISTRIBUTION, BY SEX, SIX AUSTRALIAN STATE CAPITAL CITIES
NOVEMBER 1961 TO 1965—continued
(’000)

(000)

Age group (years)	Occupational status of civilians in the work force						Civilians not in the work force		Total civilians 14 years of age and over	
	Employed(a)		Unemployed		Total in civilian work force					
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
November 1962—										
14-19 . . .	144.4	154.0	7.1	6.1	151.5	160.1	141.9	133.0	293.4	293.1
20-44 . . .	984.1	428.7	8.6	8.7	992.6	437.4	34.6	578.3	1,027.2	1,015.7
45-64 . . .	552.9	192.1	7.7	*	560.6	195.1	50.6	449.1	611.2	644.2
65 and over . . .	50.1	15.3	*	*	50.9	15.3	168.9	317.4	219.8	332.7
Total . . .	1,731.5	790.1	24.2	17.8	1,755.6	808.0	396.0	1,477.8	2,151.7	2,285.8
November 1963—										
14-19 . . .	161.7	165.5	5.0	*	166.7	169.6	149.0	144.7	315.7	314.4
20-44 . . .	992.0	437.4	7.5	5.7	999.6	443.1	36.3	582.7	1,035.8	1,025.8
45-64 . . .	567.0	192.3	5.2	*	572.2	194.0	51.6	461.3	623.8	655.2
65 and over . . .	43.5	13.7	*	..	44.4	13.7	177.7	326.7	222.2	340.4
Total . . .	1,764.2	808.9	18.6	11.5	1,782.8	820.4	414.5	1,515.4	2,197.3	2,335.8
November 1964—										
14-19 . . .	169.8	177.8	*	*	172.9	182.2	162.4	150.9	335.3	333.1
20-44 . . .	1,014.0	450.1	6.0	7.2	1,020.0	457.3	36.1	587.2	1,056.2	1,044.5
45-64 . . .	574.8	197.0	*	*	578.1	198.8	57.4	470.5	635.6	669.4
65 and over . . .	49.3	12.2	*	*	49.7	12.3	173.4	335.1	223.1	347.4
Total . . .	1,807.8	837.1	12.9	13.6	1,820.8	850.7	429.4	1,543.7	2,250.2	2,394.4
November 1965—										
14-19 . . .	176.9	178.0	7.0	7.4	183.8	185.4	164.0	160.3	347.9	345.7
20-44 . . .	1,037.2	480.2	7.4	8.2	1,044.6	488.3	40.7	582.2	1,085.4	1,070.5
45-64 . . .	589.8	217.0	*	*	592.9	219.1	55.2	463.3	648.2	682.4
65 and over . . .	49.1	13.1	*	..	50.1	13.1	177.5	342.3	227.6	355.4
Total . . .	1,853.0	888.2	18.5	17.7	1,871.5	905.9	437.5	1,548.1	2,309.0	2,454.0

(a) Includes employees, employers, self-employed persons, and unpaid helpers who worked 15 hours or more a week in a family business.

* Estimates of less than 5,000 are not published in the table because they would be subject to sampling variability too high for most practical purposes. Although figures for these small components can, in some cases, be derived from the tables by deduction, undue significance should not be attached to them.

Work force participation and unemployment rates

The table below shows work force participation rates and unemployment rates by marital status for the civilian population fourteen years of age and over in the six State capital cities at November in each of the years 1961 to 1965.

CIVILIAN POPULATION 14 YEARS OF AGE AND OVER: WORK FORCE PARTICIPATION AND UNEMPLOYMENT RATES, BY MARITAL STATUS AND SEX, SIX AUSTRALIAN STATE CAPITAL CITIES
NOVEMBER 1961 TO 1965

(Per cent)

November—	Work force participation rate(a)			Unemployment rate(b)		
	Married	Not married(c)	Total	Married	Not married(c)	Total
Males—						
1961 . . .	88.8	68.8	81.8	1.5	3.8	2.2
1962 . . .	88.8	68.1	81.6	0.8	2.8	1.4
1963 . . .	88.4	67.5	81.1	0.6	2.0	1.0
1964 . . .	88.7	66.9	80.9	0.4	1.4	0.7
1965 . . .	89.1	66.9	81.1	0.6	2.0	1.0

For footnotes see next page.

**CIVILIAN POPULATION 14 YEARS OF AGE AND OVER: WORK FORCE
PARTICIPATION AND UNEMPLOYMENT RATES, BY MARITAL
STATUS AND SEX, SIX AUSTRALIAN STATE CAPITAL CITIES
NOVEMBER 1961 TO 1965—continued**

(Per cent)

November—	Work force participation rate(a)			Unemployment rate(b)		
	Married	Not married(c)	Total	Married	Not married(c)	Total
Females—						
1961 . . .	26.9	46.8	34.5	2.8	2.8	2.8
1962 . . .	27.7	47.8	35.3	1.9	2.5	2.2
1963 . . .	27.3	47.9	35.1	1.1	1.7	1.4
1964 . . .	28.5	46.8	35.5	1.6	1.6	1.6
1965 . . .	30.4	47.0	36.9	1.8	2.2	2.0
Persons—						
1961 . . .	57.7	57.1	57.4	1.8	3.3	2.4
1962 . . .	58.1	57.2	57.8	1.1	2.6	1.6
1963 . . .	57.7	57.0	57.4	0.7	1.9	1.2
1964 . . .	58.3	56.2	57.5	0.7	1.5	1.0
1965 . . .	59.5	56.3	58.3	0.9	2.0	1.3

(a) The civilian work force as a percentage of the civilian population 14 years of age and over. (b) The number unemployed as a percentage of the civilian work force. (c) Includes never married, widowed and divorced.

Unemployment in industry groups

The following table shows the unemployment rate in each industry group for the six State capital cities at November in each of the years 1961 to 1965. The total work force for a particular industry group comprises persons currently employed in the industry group and those unemployed persons whose last employment was in the group. The unemployment rates given in the table are the numbers unemployed in the industry groups expressed as percentages of the total work force in those groups. Because unemployed persons with no previous employment experience are excluded from the calculations used for this table, the unemployment rate shown for 'All industries combined' differs from the unemployment rate for the civilian work force as a whole. This latter rate, which is given in the preceding tables, takes into account all unemployed persons, including those seeking work for the first time.

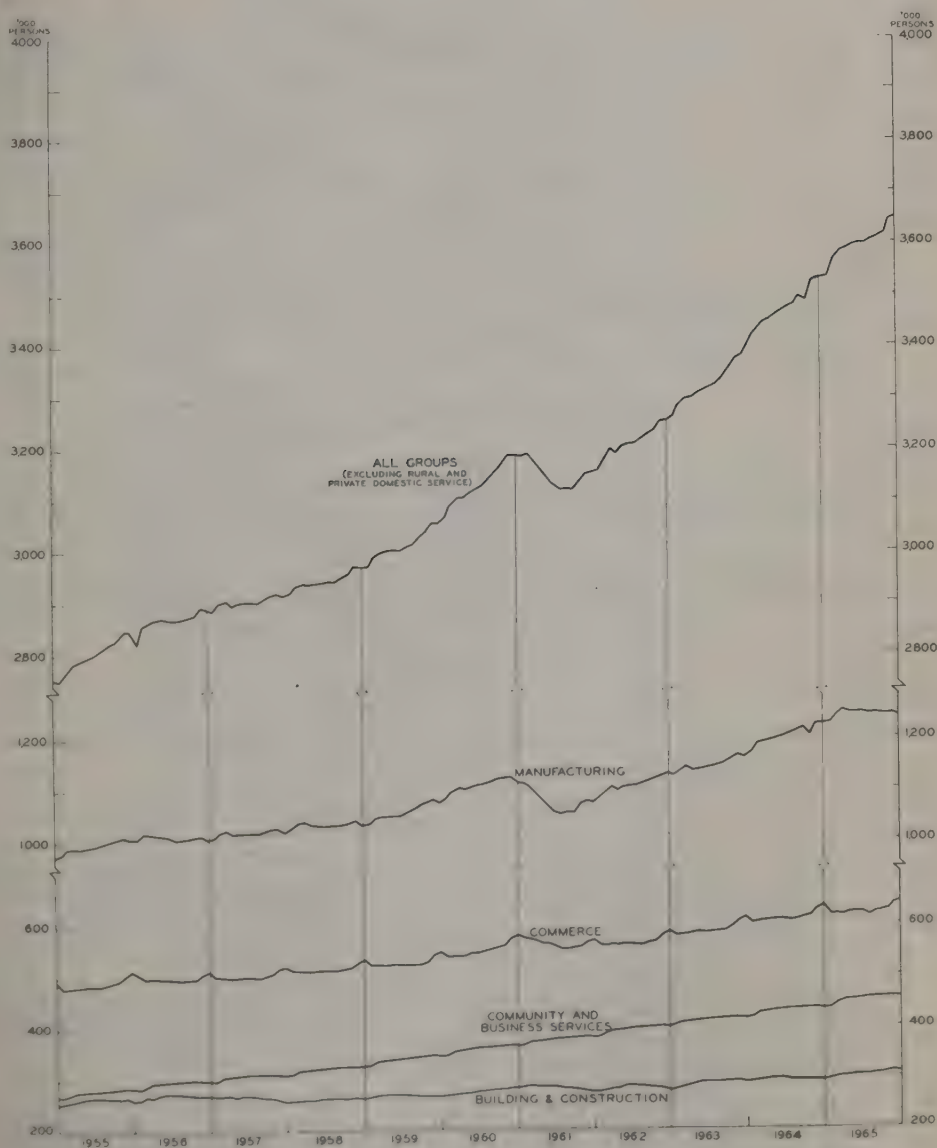
**CIVILIAN POPULATION 14 YEARS OF AGE AND OVER: UNEMPLOYMENT
RATES(a), BY INDUSTRY GROUP, SIX AUSTRALIAN STATE CAPITAL
CITIES, NOVEMBER 1961 TO 1965**

(Per cent)

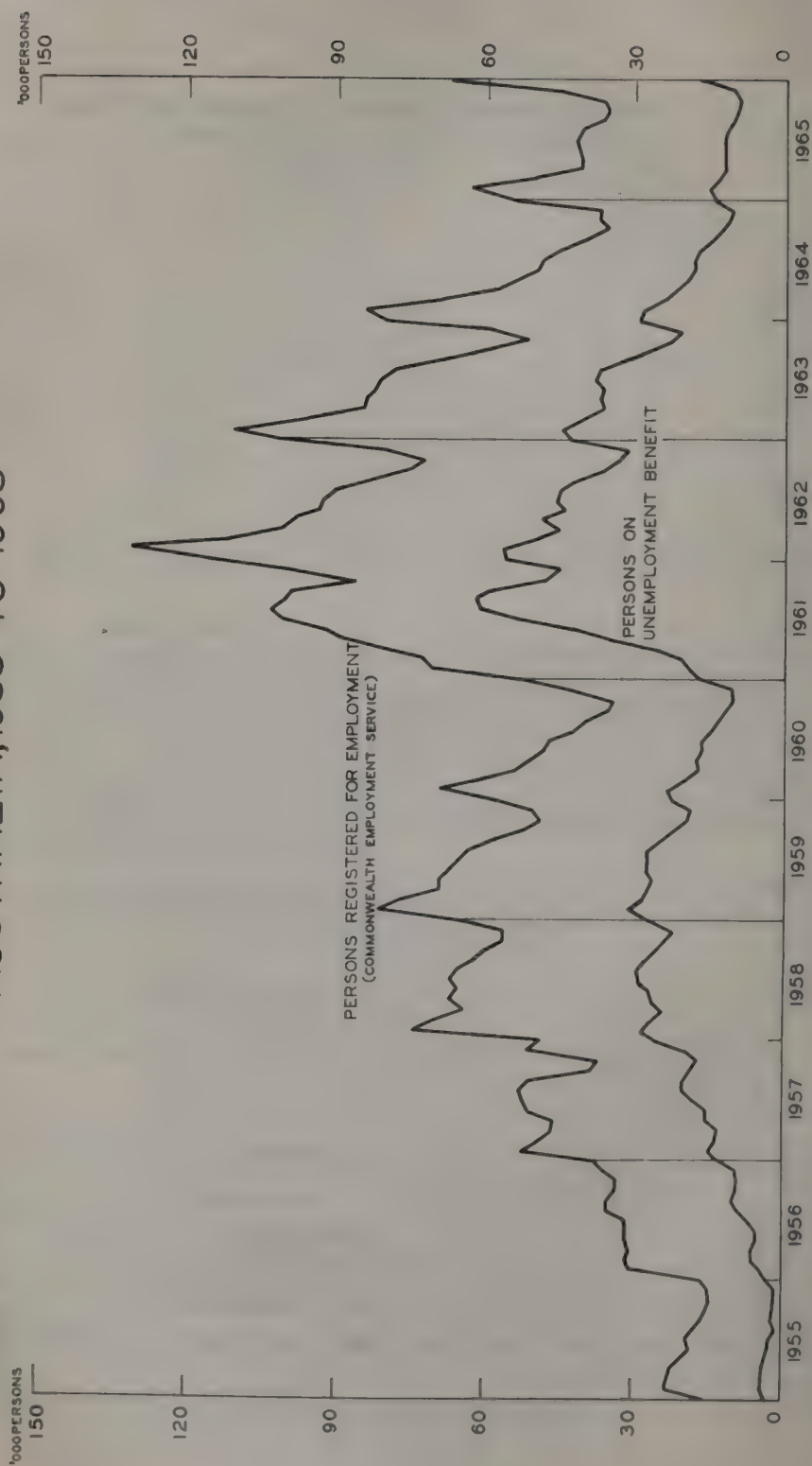
Industry group in which last employed	November—				
	1961	1962	1963	1964	1965
Manufacturing	2.1	1.3	0.9	0.8	0.9
Building and construction	3.9	1.1	1.2	0.5	1.2
Transport, storage and communication	1.4	0.9	0.8	0.5	0.7
Commerce	2.1	1.4	0.9	0.9	1.3
Public authority (n.e.i.); community and business services (including professional)	0.9	0.7	0.7	0.7	0.7
Amusement, hotels and other accommodation, cafes, etc., personal service, etc.	3.0	2.3	1.4	1.7	1.2
Other industries	2.1	1.8	1.3	1.0	1.0
All industries combined(b)	2.1	1.3	1.0	0.8	1.0

(a) The numbers unemployed in the industry groups as percentages of the total work force in those groups. (b) Excludes unemployed persons who had not previously been employed.

WAGE AND SALARY EARNERS IN CIVILIAN EMPLOYMENT
 PRINCIPAL INDUSTRY GROUPS: AUSTRALIA
 1955 TO 1965



REGISTERED UNEMPLOYED AND NUMBER ON UNEMPLOYMENT BENEFIT AUSTRALIA, 1955 TO 1965



The table below shows, for the six State capital cities at November in each of the years 1961 to 1965, the unemployed in each industry group as a percentage of the total unemployed civilians fourteen years of age and over.

CIVILIAN POPULATION 14 YEARS OF AGE AND OVER: DISTRIBUTION OF UNEMPLOYED BY INDUSTRY GROUP, SIX AUSTRALIAN STATE CAPITAL CITIES NOVEMBER 1961 TO 1965

(Per cent)

Industry group in which last employed	November—				
	1961	1962	1963	1964	1965
Manufacturing	30.4	27.8	27.7	28.6	24.0
Building and construction	11.9	4.7	7.7	4.0	6.9
Transport, storage and communication	5.0	4.3	5.2	4.1	4.1
Commerce	17.5	16.4	15.3	17.1	18.7
Public authority (n.e.i.); community and business services (including professional)	5.9	7.1	9.6	11.2	8.7
Amusement, hotels and other accommodation, cafés, etc., personal service, etc.	8.6	9.5	8.6	11.0	5.9
Other industries	7.0	8.5	8.5	7.5	6.1
<i>All unemployed persons who had previous employment</i>	<i>86.3</i>	<i>78.3</i>	<i>82.6</i>	<i>83.5</i>	<i>74.4</i>
Unemployed persons who had not previously been employed(a)	13.7	21.7	17.4	16.5	25.6
Total unemployed persons	100.0	100.0	100.0	100.0	100.0

(a) Comprises mainly school-leavers seeking work for the first time.

Duration of unemployment

The following table shows, for the six State capital cities at November in each of the years 1961 to 1965, the unemployed, classified by duration of unemployment, as a percentage of the total unemployed civilians fourteen years of age and over.

CIVILIAN POPULATION 14 YEARS OF AGE AND OVER: DISTRIBUTION OF UNEMPLOYED BY SEX AND DURATION OF UNEMPLOYMENT, SIX AUSTRALIAN STATE CAPITAL CITIES, NOVEMBER 1961 TO 1965

(Per cent)

Period of unemployment	November—				
	1961	1962	1963	1964	1965
Males—					
Less than one month	35.2	44.5	60.6	62.0	69.3
One month and less than three months	28.4	26.0	17.9	21.2	19.1
Three months and over	36.4	29.5	21.5	16.8	11.6
Total	100.0	100.0	100.0	100.0	100.0
Females—					
Less than one month	44.5	42.7	55.0	56.6	68.1
One month and less than three months	19.7	26.7	21.1	27.5	22.3
Three months and over	35.8	30.6	23.9	15.9	9.6
Total	100.0	100.0	100.0	100.0	100.0
Persons—					
Less than one month	38.6	43.7	58.5	59.3	68.7
One month and less than three months	25.2	26.3	19.1	24.4	20.7
Three months and over	36.2	30.0	22.4	16.3	10.6
Total	100.0	100.0	100.0	100.0	100.0

Persons working less than 35 hours a week

In the work force surveys, persons who report themselves as having worked less than thirty-five hours a week are further questioned to ascertain their reasons for not working longer hours. In the following table, employed civilians in the six State capital cities, fourteen years of age and over, who worked less than thirty-five hours a week are classified according to the reasons why they did not work longer hours.

EMPLOYED CIVILIANS 14 YEARS OF AGE AND OVER WHO WORKED LESS THAN 35 HOURS PER WEEK, BY REASON: SIX AUSTRALIAN STATE CAPITAL CITIES NOVEMBER 1961 TO 1965

November—	Reason for working less than 35 hours a week								
	Persons who usually work 35 hours or more a week			Persons who usually work less than 35 hours a week			All persons who worked less than 35 hours in the survey period		
	Lack of work (a)	Other reasons (b)	Total	Lack of work (c)	Other reasons (d)	Total	Lack of work (a)(c)	Other reasons (b)(d)	Total
Number ('000)—									
1961	25.4	215.5	240.9	19.8	181.9	201.6	45.1	397.3	442.5
1962	14.7	228.3	243.0	12.2	197.4	209.6	26.9	425.7	452.6
1963	12.4	229.9	242.2	7.6	213.1	220.7	20.0	443.0	463.0
1964	10.7	226.5	237.2	7.3	230.5	237.8	18.0	457.0	475.0
1965	17.2	238.8	256.0	7.8	258.1	265.8	25.0	496.8	521.8
Proportion of the civilian work force of the six capitals (per cent)—									
1961	1.0	8.6	9.6	0.8	7.3	8.1	1.8	15.9	17.7
1962	0.6	8.9	9.5	0.5	7.7	8.2	1.1	16.6	17.7
1963	0.5	8.8	9.3	0.3	8.2	8.5	0.8	17.0	17.8
1964	0.4	8.5	8.9	0.3	8.6	8.9	0.7	17.1	17.8
1965	0.6	8.6	9.2	0.3	9.3	9.6	0.9	17.9	18.8

(a) Excludes persons laid off for whole week without pay, who are included in the unemployed. The figures comprise persons working short time, those who lost their jobs or commenced in new jobs during the specified week, and those absent from work because of plant breakdowns or bad weather. (b) Own illness or injury, leave or holiday, and industrial disputes. (c) Persons who would prefer to work 35 hours a more a week if suitable work were available. (d) Persons who prefer to work less than 35 hours a week.

WAGE AND SALARY EARNERS IN EMPLOYMENT

The monthly estimates of the number of wage and salary earners in civilian employment (excluding employees in rural industry and private domestic service) are based on comprehensive data (referred to herein as 'benchmarks') derived for the purpose from the population censuses of June 1954 and June 1961. Figures for periods between, and subsequent to, the two benchmark points of time are estimates obtained from three main sources, namely (a) current pay-roll tax returns, (b) current returns from government bodies, and (c) some other direct current records of employment (e.g. for hospitals). Data from these sources have been supplemented by estimates of changes in the number of wage and salary earners not covered by the foregoing collections.

Figures for current months are subject to revision. As they become available, particulars of employment obtained from other collections, such as the annual factory census and the censuses and sample surveys of retail establishments, are used to check, and, where desirable, to revise estimates in relevant sections. The work force survey (*see* page 317) will supply an additional check for future estimates.

The benchmark figures are derived from particulars recorded for individuals on population census schedules. The estimated monthly figures are derived mainly from reports supplied by employers relating to enterprises or establishments. These two sources differ in some cases in scope and in reporting of industry; however, the benchmark industry dissections have been adjusted, as nearly as may be, to an enterprise/establishment reporting basis. The industry classification used throughout the series is that of the population census of June 1961.

Pay-roll tax returns are lodged at present by all employers paying more than \$400 a week in wages (other than certain Commonwealth Government bodies, religious and benevolent institutions, public hospitals, and other similar organizations specifically exempted under the *Pay-roll Tax Assessment Act 1941-1965*). At June 1954 this Act required employers paying

wages of more than £80 (\$160) a week to lodge returns. The exemption limit was raised to £120 (\$240) a week from 1 September 1954, and to the present level of £200 (\$400) a week as from 1 September 1957.

The figures relate to 'wage and salary earners' on payrolls or 'in employment' in the latter part of each month as distinct from numbers of employees actually working on a specific date. They include some persons working part-time. Employees in rural industry and in private domestic service are not included in the estimates, because of the inadequacy of current data.

The prime purpose of this series is to measure, as nearly as may be with available data, *current monthly trends* in employment in the defined field. The estimates may be less reliable for longer-term measurement. However, as a broad measure of long-term trends, figures for the period June 1947 to June 1954, estimated on a basis approximately comparable with that for later periods, are to be found on page 172 of *Labour Report* No. 50, 1962 and 1963.

Total civilian employees and defence forces

The following table shows, for Australia, the estimated numbers of private and government civilian employees (excluding employees in rural industry and private domestic service) and the numbers in the defence forces at June of each of the years 1954 and 1961 to 1965 and at December 1965.

WAGE AND SALARY EARNERS IN EMPLOYMENT, BY SEX: AUSTRALIA JUNE 1954 TO DECEMBER 1965

(EXCLUDING EMPLOYEES IN RURAL INDUSTRY AND PRIVATE DOMESTIC SERVICE)

('000)

Particulars	June 1954	June 1961	June 1962	June 1963	June 1964	June 1965	Dec. 1965
Males—							
Civilian employees—							
Private	1,407.5	1,594.6	1,626.4	1,680.8	1,762.1	1,832.4	1,847.3
Government(a)	596.2	669.7	681.6	695.4	707.1	718.6	727.0
Total	2,003.7	2,264.3	2,308.0	2,376.2	2,469.2	2,551.0	2,574.3
Defence forces(b)	50.4	44.3	45.8	47.2	49.6	52.5	57.5
Total	2,054.1	2,308.6	2,353.8	2,423.4	2,518.8	2,603.5	2,631.8
Females—							
Civilian employees—							
Private	589.0	714.5	744.7	771.5	815.0	861.4	884.7
Government(a)	112.5	154.4	160.8	167.1	176.3	187.5	190.6
Total	701.5	868.9	905.5	938.6	991.3	1,048.9	1,075.3
Defence forces(b)	2.0	1.8	2.0	2.1	2.2	2.2	2.2
Total	703.5	870.7	907.5	940.7	993.5	1,051.1	1,077.5
Persons—							
Civilian employees—							
Private	1,996.5	2,309.1	2,371.1	2,452.3	2,577.2	2,693.8	2,732.1
Government(a)	708.7	824.1	842.4	862.5	883.4	906.1	917.5
Total	2,705.2	3,133.2	3,213.5	3,314.8	3,460.6	3,599.9	3,649.6
Defence forces(b)	52.4	46.1	47.8	49.3	51.8	54.7	59.8
Total	2,757.6	3,179.3	3,261.3	3,364.1	3,512.4	3,654.6	3,709.4

(a) Includes employees, within Australia, of government authorities (Commonwealth, State, local and semi-government) on services such as railways, tramways, banks, post office, air transport, education (including universities), broadcasting, television, police, public works, factories and munitions establishments, departmental hospitals and institutions, migrant hostels etc., as well as administrative employees. See pages 326-7.

(b) Permanent defence forces in Australia and overseas. Figures for December 1965 include national servicemen enlisted in the Regular Army Supplement.

Civilian employees

The following table shows, for Australia, the estimated number of wage and salary earners in civilian employment (excluding employees in rural industry and private domestic service) in the principal industry groups at June of each of the years 1954 and 1961 to 1965 and at December 1965. Revised figures for June and December 1965 will be found in the Appendix.

WAGE AND SALARY EARNERS IN CIVILIAN EMPLOYMENT, BY INDUSTRY GROUP AND SEX: AUSTRALIA, JUNE 1954 TO DECEMBER 1965

(EXCLUDING EMPLOYEES IN RURAL INDUSTRY AND PRIVATE DOMESTIC SERVICE, AND DEFENCE FORCES)

('000)

Industry group	June 1954	June 1961	June 1962	June 1963	June 1964	June 1965	Dec. 1965
MALES							
Mining and quarrying .	56.2	48.2	46.3	45.9	46.4	47.7	49.0
Manufacturing(a) .	744.6	821.6	852.8	879.4	920.9	952.4	945.9
Electricity, gas, water and sanitary services .	71.3	88.5	90.2	91.5	93.4	94.6	94.8
Building and construction	253.4	274.8	275.9	281.6	289.9	298.9	303.7
Transport and storage .	187.5	190.4	185.1	187.1	192.5	197.9	201.2
Communication .	64.1	75.2	76.0	76.8	78.3	79.4	82.0
Finance and property .	57.0	80.4	82.7	86.2	92.1	96.9	97.6
Retail trade .	161.7	191.3	193.5	203.2	210.5	213.8	217.6
Wholesale and other com- merce .	134.1	161.4	161.0	164.4	170.5	177.0	181.1
Public authority activities (n.e.i.) .	83.9	95.0	97.9	101.7	105.7	110.1	112.7
Health, hospitals, etc. .	25.7	31.0	32.7	33.8	35.3	36.2	36.9
Education .	38.8	57.1	61.7	66.2	69.5	73.1	72.7
Amusement, hotels, per- sonal service, etc. .	61.4	70.1	70.8	74.6	78.2	83.2	88.1
Other(b) .	64.0	79.3	81.2	83.9	86.0	90.0	91.1
Total .	2,003.7	2,264.3	2,308.0	2,376.2	2,469.2	2,551.0	2,574.3

FEMALES

Mining and quarrying .	1.0	1.4	1.5	1.6	1.7	1.8	1.9
Manufacturing(a) .	214.9	233.5	252.9	259.7	277.6	294.0	294.9
Electricity, gas, water and sanitary services .	4.5	6.2	6.3	6.4	6.5	7.0	7.1
Building and construction	2.8	4.9	5.0	5.5	5.8	6.6	6.9
Transport and storage .	14.4	17.0	16.8	17.1	18.1	19.4	20.3
Communication .	16.7	18.3	18.0	18.3	19.2	20.6	22.2
Finance and property .	32.5	54.2	55.0	56.6	60.0	63.6	64.6
Retail trade .	125.4	150.7	156.5	162.7	169.5	176.2	188.6
Wholesale and other com- merce .	40.4	49.2	48.7	50.0	52.1	55.5	57.2
Public authority activities (n.e.i.) .	28.3	34.6	35.7	37.2	39.1	42.0	43.9
Health, hospitals, etc. .	73.0	102.6	106.8	111.4	117.6	124.3	125.1
Education .	49.6	73.7	79.3	83.6	87.9	91.3	89.4
Amusement, hotels, per- sonal service, etc. .	68.3	78.8	78.2	81.8	86.0	93.5	98.5
Other(b) .	29.7	43.9	45.0	46.8	50.3	53.2	54.7
Total .	701.5	868.9	905.5	938.6	991.3	1,048.9	1,075.3

For footnotes see next page.

WAGE AND SALARY EARNERS IN CIVILIAN EMPLOYMENT, BY INDUSTRY GROUP AND SEX: AUSTRALIA, JUNE 1954 TO DECEMBER 1965—*continued*

(EXCLUDING EMPLOYEES IN RURAL INDUSTRY AND PRIVATE DOMESTIC SERVICE, AND DEFENCE FORCES)

('000)

Industry group	June 1954	June 1961	June 1962	June 1963	June 1964	June 1965	Dec. 1965
PERSONS							
Mining and quarrying .	57.2	49.6	47.8	47.5	48.1	49.5	50.9
Manufacturing(a) .	959.5	1,055.1	1,105.7	1,139.1	1,198.5	1,246.4	1,240.8
Electricity, gas, water and sanitary services .	75.8	94.7	96.5	97.9	99.9	101.6	101.9
Building and construction	256.2	279.7	280.9	287.1	295.7	305.5	310.6
Transport and storage .	201.9	207.4	201.9	204.2	210.6	217.3	221.5
Communication .	80.8	93.5	94.0	95.1	97.5	100.0	104.2
Finance and property .	89.5	134.6	137.7	142.8	152.1	160.4	162.2
Retail trade .	287.1	342.0	350.1	365.9	380.0	389.9	406.2
Wholesale and other com- merce .	174.5	210.6	209.6	214.4	222.6	232.5	238.3
Public authority activities (n.e.i.) .	112.2	129.6	133.6	138.9	144.8	152.1	156.6
Health, hospitals, etc. .	98.7	133.6	139.5	145.2	152.9	160.5	162.0
Education .	88.4	130.7	141.0	149.7	157.4	164.4	162.0
Amusement, hotels, per- sonal service, etc. .	129.7	148.9	149.0	156.4	164.2	176.7	186.6
Other(b) .	93.7	123.2	126.3	130.7	136.3	143.2	145.8
Total	2,705.2	3,133.2	3,213.5	3,314.8	3,460.6	3,599.9	3,649.6

(a) As well as employees engaged directly in manufacturing activity, these figures include the employees of manufacturing enterprises or establishments who are engaged in selling and distribution, etc. (b) Com-
prises forestry, fishing and trapping; law, order and public safety; religion and social welfare; and other
community and business services.

Estimates of the number of wage and salary earners (excluding employees in rural industry, private domestic service and defence forces) are shown in the following table for each State and Territory at June of each of the years 1954 and 1961 to 1965 and at December 1965.

WAGE AND SALARY EARNERS IN CIVILIAN EMPLOYMENT, BY SEX: STATES AND TERRITORIES, JUNE 1954 TO DECEMBER 1965

(EXCLUDING EMPLOYEES IN RURAL INDUSTRY AND PRIVATE DOMESTIC SERVICE, AND DEFENCE FORCES)

('000)

Month	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T. (a)	Aus- tralia
MALES									
1954—June	774.8	563.4	266.4	178.6	141.2	64.8	5.0	9.5	2,003.7
1961—June	876.5	643.6	291.7	207.5	148.5	73.2	7.3	16.0	2,264.3
1962—June	894.2	654.3	294.5	211.2	154.7	73.6	7.5	18.0	2,308.0
1963—June	914.2	675.2	304.5	219.6	159.4	74.9	8.0	20.4	2,376.2
1964—June	947.9	702.8	316.8	229.1	164.3	77.5	8.9	21.9	2,469.2
1965—June	974.8	722.9	329.8	239.7	171.5	78.5	9.6	24.2	2,551.0
1965—December	987.3	728.9	323.8	241.0	177.6	80.4	9.8	25.6	2,574.3

(a) Includes persons employed in the Australian Capital Territory who reside in adjoining areas.

**WAGE AND SALARY EARNERS IN CIVILIAN EMPLOYMENT, BY SEX: STATES
AND TERRITORIES, JUNE 1954 TO DECEMBER 1965—continued**

(EXCLUDING EMPLOYEES IN RURAL INDUSTRY AND PRIVATE DOMESTIC SERVICE, AND
DEFENCE FORCES)

('000)

Month	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T. (a)	Aus- tralia
FEMALES									
1954—June . . .	275.8	216.7	85.8	55.7	43.2	20.2	1.2	2.9	701.5
1961—June . . .	343.6	266.2	102.1	72.3	51.2	24.9	2.3	6.3	868.9
1962—June . . .	359.0	276.5	104.7	76.7	53.4	25.5	2.5	7.2	905.5
1963—June . . .	370.8	285.4	108.9	80.9	55.5	25.5	2.9	8.7	938.6
1964—June . . .	390.7	300.6	115.5	86.0	58.5	27.0	3.0	10.0	991.3
1965—June . . .	411.9	315.5	122.9	93.2	62.9	27.8	3.2	11.5	1,048.9
1965—December . .	424.5	321.4	124.8	94.6	65.0	29.2	3.4	12.3	1,075.3

PERSONS									
1954—June . . .	1,050.6	780.1	352.2	234.3	184.4	85.0	6.2	12.4	2,705.2
1961—June . . .	1,220.1	909.8	393.8	279.8	199.7	98.1	9.6	22.3	3,133.2
1962—June . . .	1,253.2	930.8	399.2	287.9	208.1	99.1	10.0	25.2	3,213.5
1963—June . . .	1,285.0	960.6	413.4	300.5	214.9	100.4	10.9	29.1	3,314.8
1964—June . . .	1,338.6	1,003.3	432.3	315.2	222.9	104.5	11.9	31.9	3,460.6
1965—June . . .	1,386.7	1,038.4	452.7	332.9	234.4	106.3	12.8	35.7	3,599.9
1965—December . .	1,411.8	1,050.2	448.6	335.6	242.6	109.6	13.2	38.0	3,649.6

(a) Includes persons employed in the Australian Capital Territory who reside in adjoining areas.

Government employees

The numbers of civilian employees of Commonwealth, State and local government authorities in each State and Territory at June 1965 are shown in the following table. These include employees within Australia of government authorities on services such as railways, tramways, banks, post office, air transport, education (including universities), broadcasting, television, police, public works, factories and munitions establishments, departmental hospitals and institutions, migrant hostels, etc., as well as administrative employees.

**CIVILIAN EMPLOYEES OF GOVERNMENT AUTHORITIES, BY SEX: STATES AND
TERRITORIES, JUNE 1965**

('000)

State or Territory	Commonwealth Government(a)			State Government(a)			Local government			Total(a)		
	Males	Fe- males	Persons	Males	Fe- males	Persons	Males	Fe- males	Persons	Males	Fe- males	Persons
N.S.W. . .	69.4	20.2	89.7	148.1	43.2	191.2	39.5	4.6	44.1	257.0	68.0	324.9
Vic. . .	58.9	16.9	75.7	114.2	31.1	145.3	15.7	2.1	17.8	188.8	50.0	238.8
Qld . .	20.5	5.6	26.1	66.8	13.8	80.6	17.9	1.3	19.2	105.2	20.7	125.9
S.A. . .	20.8	4.9	25.7	43.7	16.0	59.6	4.3	0.5	4.8	68.8	21.3	90.1
W.A. . .	11.0	2.8	13.7	40.7	10.2	50.9	4.6	0.5	5.1	56.3	13.5	69.8
Tas. . .	4.8	1.3	6.2	17.5	4.7	22.2	2.1	0.2	2.3	24.4	6.2	30.7
N.T. . .	4.4	1.5	5.8	..	..	..	0.1	..	0.1	4.4	1.5	5.9
A.C.T. . .	13.7	6.3	20.0	..	..	..	..	..	..	13.7	6.3	20.0
Australia . .	203.5	59.4	262.9	430.9	118.9	549.8	84.2	9.2	93.4	718.6	187.5	906.1

(a) Includes semi-government authorities. See explanation above.

The following table shows at June in each of the years 1961 to 1965 and at December 1965, the number of civilian employees of Commonwealth, State and local government authorities.

**CIVILIAN EMPLOYEES OF GOVERNMENT AUTHORITIES, BY SEX: AUSTRALIA,
JUNE 1961 TO DECEMBER 1965
(’000)**

Month	Commonwealth Government(a)			State Government(a)			Local government			Total(a)		
	Males	Fe-males	Persons	Males	Fe-males	Persons	Males	Fe-males	Persons	Males	Fe-males	Persons
June—												
1961	182.0	49.7	231.7	411.5	96.9	508.4	76.2	7.8	84.0	669.7	154.4	824.1
1962	185.3	50.0	235.3	417.2	102.8	520.0	79.1	8.0	87.1	681.6	160.8	842.4
1963	189.7	51.4	241.1	424.6	107.3	531.9	81.1	8.4	89.5	695.4	167.1	862.5
1964	196.0	54.4	250.4	428.9	113.2	542.1	82.2	8.7	90.9	707.1	176.3	883.4
1965	203.5	59.4	262.9	430.9	118.9	549.8	84.2	9.2	93.4	718.6	187.5	906.1
Dec.—												
1965	209.7	62.6	272.4	431.6	118.3	550.0	85.6	9.6	95.2	727.0	190.6	917.5

(a) Includes semi-governmental authorities. See explanation on page 326.

COMMONWEALTH EMPLOYMENT SERVICE

Statutory warrant for the Commonwealth Employment Service (C.E.S.) is to be found in the *Re-establishment and Employment Act 1945-1962* (sections 47 and 48). In brief, the main functions of the Service are to assist people seeking employment to obtain positions best suited to their training, experience, abilities and qualifications; and to assist employers seeking labour to obtain employees best suited to their needs. The organization and functions of the C.E.S. conform to the provisions of the Employment Service Convention, 1948, of the International Labour Organization, which was ratified by Australia in December 1949. In addition, C.E.S. practices accord substantially with the provisions of the I.L.O. Employment Service Recommendation, 1948.

The C.E.S. functions on a decentralized basis within the Employment and Industrial Services Division of the Department of Labour and National Service. The Central Office is in Melbourne and there is a Regional Office in the capital city of each State. There are 148 District Employment Offices and Branch Offices in suburban and the larger provincial centres and 321 agents in the smaller country centres. The District Employment Offices and Branch Offices are distributed as follows: New South Wales, 54; Victoria, 37; Queensland, 24; South Australia, 13; Western Australia, 13; Tasmania, 4; Northern Territory, 2; Australian Capital Territory, 1.

Specialized facilities are provided for young people, persons with physical and mental handicaps, ex-members of the defence forces, migrants, rural workers, and persons with professional and technical qualifications. Vocational guidance is provided free of charge by a staff of qualified psychologists. It is available to any person, but is provided particularly for young people, ex-servicemen and the physically handicapped. The N.S.W. Department of Labour and Industry provides a vocational guidance service within the school system and for young persons leaving school.

All applicants for unemployment benefits under the *Social Services Act 1947-1965* must register at a District Employment Office or agency of the C.E.S., which is responsible for certifying whether or not suitable employment can be offered to them. The C.E.S. is responsible for placing in employment migrant workers sponsored by the Commonwealth under the Commonwealth Nomination and similar schemes. This includes arranging for them to move to their initial employment and for their admission, if necessary, to Commonwealth migrant hostels. Assistance in obtaining employment is provided to other migrants as required. From the inception of the various free and assisted schemes, including the Displaced Persons Scheme, to the end of December 1965, about 236,000 British and European migrant workers had been placed in initial employment by the C.E.S. Since 1951 it has been responsible for recruiting Australian experts for overseas service under the Colombo Plan and the United Nations Expanded Programme of Technical Assistance (now replaced by the U.N. Development Programme). The principal spheres in which experts have been supplied are agriculture, education, engineering, geology, health, and economic and scientific research and development.

In association with placement activities, regular surveys of the labour market are carried out and detailed information is supplied to interested Commonwealth and State Government departments and instrumentalities and to the public. Employers, employees and other interested persons are advised on labour availability and employment opportunities in various occupations and areas and on other matters concerning employment.

The Service completed its twentieth year of operation in May 1966. During 1965 there were 934,904 applicants who registered for employment, of whom 723,717 were referred to employers and 424,270 placed in employment. New vacancies notified numbered 632,334 and vacancies unfilled at the end of December 1965, 60,351.

Persons registered for employment

The following table shows the number of persons who claimed, when registering for employment with the Commonwealth Employment Service, that they were not employed and who were recorded as unplaced. The figures include those persons who were referred to employers and those who may have obtained employment without notifying the C.E.S. They include persons in receipt of unemployment benefit (*see* the chapter Welfare Services).

PERSONS REGISTERED FOR EMPLOYMENT WITH COMMONWEALTH EMPLOYMENT SERVICE: STATES, JUNE 1954 TO MARCH 1966

(Source: Department of Labour and National Service.)

Month (a)	N.S.W. (b)	Vic.	Qld	S.A. (c)	W.A.	Tas.	Aust.
1954—June .	9,250	5,231	4,557	964	1,807	555	22,364
1961—June .	42,793	30,764	19,263	9,035	6,616	3,213	111,684
1962—June .	34,869	26,160	16,284	6,886	5,320	3,609	93,128
1963—June .	34,258	19,135	12,055	6,479	6,053	3,427	81,407
1964—June .	18,400	10,137	7,558	4,339	5,141	2,968	48,543
1965—June .	15,670	8,771	8,360	3,533	3,576	2,235	42,145
1965—July .	16,118	9,006	6,759	3,646	3,284	2,208	41,021
August .	14,582	8,029	5,915	3,396	2,731	1,932	36,585
September .	13,685	8,789	5,735	3,426	2,182	1,824	35,641
October .	14,086	8,297	6,609	3,587	2,065	1,737	36,381
November .	20,224	8,471	9,645	3,749	2,118	1,475	45,682
December .	23,120	15,608	16,575	6,144	3,336	2,776	67,559
1966—January .	26,600	18,179	18,971	7,563	4,231	2,764	78,308
February .	24,242	13,980	15,102	6,818	3,500	2,323	65,965
March .	21,633	12,440	13,327	6,471	3,051	1,382	58,304

(a) Generally at Friday nearest end of month.
Northern Territory.

(b) Includes Australian Capital Territory.

(c) Includes

CHAPTER 12

LABOUR, WAGES AND PRICES

For particulars of the Farm Production Price Index, see the chapter Miscellaneous. For current information on the subjects dealt with in this chapter, see the *Monthly Review of Business Statistics*, the *Digest of Current Economic Statistics* (monthly), and the *Quarterly Summary of Australian Statistics*, also the mimeographed statements *Wage Rates and Earnings*, *Consumer Price Index*, *Wholesale Price (Basic Materials and Foodstuffs) Index*, *Wholesale Prices—Price Index of Electrical Installation Materials*, and *Export Price Index*. For further information on these subjects, except the Export Price Index, see the *Labour Report* issued by this Bureau.

RETAIL PRICES AND PRICE INDEXES

Retail prices of food and groceries and average rentals of houses for years extending back to 1901 were collected by the Commonwealth Statistician, and in some cases have been recorded by the Statisticians of various States for earlier years.

Retail prices of a more extensive range of commodities (including clothing) and certain services in common demand have been ascertained at frequent and regular intervals since 1923 and comparable information was ascertained for the month of November in each year from 1914 to 1922. The range of items for which retail prices data are obtained was considerably expanded in 1948 and in later years. Average retail prices of certain food and grocery items in current periods are published in the annual *Labour Report*.

An explanation of the nature and purposes of retail price indexes is given in the various editions of the annual *Labour Report*, together with further particulars of indexes then current. Previous retail price indexes for Australia are briefly described below. The current retail price index, entitled the Consumer Price Index, was published for the first time in August 1960. It was compiled retrospectively to 1948–49. A description of the Consumer Price Index is given on pages 330–1.

Previous Retail Price Indexes

Five series of retail price indexes had been compiled at various times for Australia by the Commonwealth Statistician prior to 1960. Each of these was continued until changed conditions required the compilation of indexes more directly relevant to current conditions. The respective indexes were as follows.

- (i) *The 'A' Series Index* (covering food, groceries and house rents) was first compiled in 1912 with the year 1911 as base = 1,000. It was discontinued in June 1938.
- (ii) *The 'B' Series Index* (covering food, groceries and rent of 4 and 5 roomed houses) was first compiled in 1925 and continued until December quarter 1953. It was the food and rent constituent of the 'C' Series Index and was designed to replace the 'A' Series Index for general statistical purposes.
- (iii) *The 'C' Series Index* (covering food and groceries, rent of 4 and 5 roomed houses, clothing, household drapery, household utensils, fuel, lighting, fares, smoking and some other miscellaneous items) was first compiled in 1921. It was last issued on its original basis for December quarter 1960 for certain transitional purposes a 'C' Series Index was issued for some quarters after that. This was calculated by varying the index numbers of December quarter 1960 in proportion to movements shown by the Consumer Price Index.
- (iv) *The 'D' Series Index*, derived by combining the 'A' and 'C' Series Indexes, was used by the Commonwealth Court of Conciliation and Arbitration from May 1933 to May 1934 and then discontinued.

- (v) *The Interim Index* (covering food and groceries, rent of 4 and 5 roomed houses, clothing, household drapery, household utensils, fuel, lighting, fares, smoking, certain services and some miscellaneous items) was first compiled in 1954 with the year 1952-53 as base = 100. As its title indicated, it was constructed as a transitional index. Its compilation was discontinued following its replacement by the Consumer Price Index in June quarter 1960.

An index of retail price movements from 1901 to 1965 is shown on page 335 of this Year Book. It is derived by linking together successive indexes (the 'A' Series, the 'C' Series and the Consumer Price Index) available for that period.

In 1937 the Commonwealth Court of Conciliation and Arbitration introduced a 'Court' Index for the purpose of its system of making automatic quarterly adjustments to the basic wage within its jurisdiction. By decision of the Court the 'Court' Index ceased to be issued by the Industrial Registrar as at December quarter 1953. These 'Court' Index numbers were an arithmetical conversion of the 'C' Series Retail Price Index.

Consumer Price Index

This retail price index was first compiled in 1960, retrospectively to September quarter 1948. A full description of the index is given in *Labour Report* No. 51, 1964.

Origin

The list of component items and the weighting pattern of the 'C' Series Retail Price Index, first adopted in 1921, were slightly revised by Conference of Statisticians in 1936, but otherwise continued almost unchanged until the index was discontinued in 1960. The reasons for this, and the circumstances which led to the present Consumer Price Index, appear from ensuing paragraphs.

From the outbreak of war in 1939 to late in 1948, periodic policy changes in regard to various war-time controls (including rationing) caused recurrent changes in consumption and in the pattern of expenditure. This rendered changes desirable but made it impracticable either to produce a new index, or to revise the old one, on any basis that would render the index more representative than it already was of the changing pattern of household expenditure in those years.

When commodity rationing had virtually ceased in the latter part of 1948 action was taken by the Statistician to collect price data of about 100 additional items and to gather information as to current consumption and expenditure patterns. This was done to facilitate review of the component items and weighting system of the 'C' Series Retail Price Index in the light of the new pattern of wage-earner expenditure and consumption that appeared to be emerging. But there supervened, in the next few years, conditions which caused wide price dispersion coupled with a very rapid rise in prices and a new sequence of changes in consumption and in the pattern of wage-earner expenditure. Under these conditions it was not possible to devise any new weighting pattern likely to be more continuously representative of conditions then current than was the existing 'C' Series Retail Price Index on the 1936 revision.

A Conference of Statisticians considered the matter in June 1953, and resolved (in part) as follows:

- (a) that, in view of the persistence of recurrent changes in the pattern of consumer expenditure in the post-war period it is undesirable to make a general revision of the list of items and weighting system of the 'C' Series Retail Price Index at present, unless industrial tribunals expressly desire some revision for special purposes;
- (b) that an Interim Retail Price Index be compiled with putative weights and components representative, as nearly as may be, of the post-war pattern of consumer usage and expenditure.

The 'C' Series Index continued to be compiled on its pre-war basis without significant change in procedures. The Interim Retail Price Index was introduced in 1954 and continued until March quarter 1960.

The Interim Index was a transitional index designed to measure retail price variations on the 'C' Series model in terms of post-war consumption weights as emerging in the early 1950's. It embraced a wider range of commodities and services than did the 'C' Series Retail Price Index, but it did not take into account successive major changes in the pattern of expenditure and modes of living that began to occur early in 1950 and through to 1960. These changes could not, in fact,

be detected and measured promptly, and incorporated into an index concurrently with their happening. Nor was it envisaged as desirable to adopt fundamentally new procedures in price index construction until it was fully evident that far-reaching procedural changes were necessary to meet the situation that had developed between about 1950 and 1960.

In this period home-owning largely replaced house-renting, the use of the motor car greatly increased and partly replaced use of public transport, and various items of electrical household equipment and television came into widespread use. The impact of these (and other) changes in usage upon the pattern of household expenditure was heightened by disparate movements in prices. Together, they rendered nugatory the attempt to meet the situation by devising a single Interim Retail Price Index. As studies progressed and new data became available, it was clear that no single list of items and no single set of fixed weights would be adequately representative as a basis for measuring retail price changes at all times throughout the post-war period. In consequence, the situation was met by compiling the Consumer Price Index constructed as a chain of linked indexes with significant changes in composition and weighting effected at short intervals.

Purpose, scope and composition

The Consumer Price Index is a quarterly measure of variations in retail prices for goods and services representing a high proportion of the expenditure of wage-earner households. The weighting pattern relates to estimated aggregates of wage-earner household expenditures and not to estimated expenditures of an 'average' or individual household of specified size, type, or mode of living. In this way it is possible to give appropriate representation to owner-occupied houses as well as rented houses and to include motor cars, television sets, and other major expenditures which relate to some households and not to others.

Consumer (retail) price indexes are sometimes loosely called 'cost of living indexes' and are thought to measure changes in the 'cost of living'. Neither the Consumer Price Index, nor any other retail price index, measures those changes in the cost of living that result directly from changes in the mode or level of living. Changes of that kind are matters for consideration apart from price indexes, but the change in prices of goods and services is a very important part of the change in the cost of living and this part is measured by consumer (retail) price indexes.

The Consumer Price Index covers a wide range of commodities and services arranged in the following five major groups:

- Food;
- Clothing and Drapery;
- Housing;
- Household Supplies and Equipment;
- Miscellaneous.

These groups do not include every item of household spending. It is both impracticable and unnecessary for them to do so. Prices are collected regularly for specified quantities and qualities of a large and representative selection of commodities and services. Movements in the prices of these items, when combined in suitable proportions, provide a representative measure of price change as affecting a high proportion of the expenditure of wage-earner households.

Structure—a chain of linked indexes

Substantial changes have occurred in consumer usage and patterns of expenditure since the 1939–45 War. In order to keep the weighting pattern representative of current expenditures it has been necessary to construct indexes with additional items and changes in the weighting pattern at intervals, rather than on the basis of a list of items and set of weights that remained unchanged throughout the whole period covered. For the six State capital cities five series for short periods (namely, from the September quarter of 1948 to the June quarter of 1952, from the June quarter of 1952 to the June quarter of 1956, from the June quarter of 1956 to the March quarter of 1960, from the March quarter of 1960 to the December quarter of 1963, and from the December quarter of 1963 onwards) have therefore been constructed and linked to form a continuous retail price index series known as the Consumer Price Index. (For information regarding these links for Canberra see *Labour Report* No. 51, 1964.)

During each period between links the items and weighting remained unchanged. At times of linking the weighting pattern was altered and new items (mainly ones that had become significant in household expenditure) were introduced. Under this method, in effect, average percentage price movements are assessed on one pattern up to the time of the link and on another pattern thereafter. The process of linking ensures that the series reflects only price variations and not differences in cost of the old and new lists of items. The introduction of new items and weights by linking does not, of itself, raise or lower the level of the index.

Tabular statements of Retail Price Index Numbers

Consumer Price Index

The index has been compiled for each quarter from September quarter 1948, and for each year from 1948-49. 'All Groups' index numbers and 'Group' index numbers for each of the five major groups are compiled and published regularly for the six State capital cities separately and combined, and for Canberra. The reference base for each of these indexes is: year 1952-53 = 100.0. Figures appearing after the decimal point possess little significance for general statistical purposes. They are inserted to avoid distortions that would occur in rounding off the figures to the nearest whole number.

Index numbers for each quarter are first issued in mimeographed statistical bulletins available from the Commonwealth Statistician about three weeks after the end of the quarter. These bulletins contain comment on the index and on significant price movements in that quarter. Tables showing index numbers for preceding quarters and years are presented.

The following table shows Consumer Price Index Numbers (Total All Groups) for the six State capital cities separately and combined and for Canberra, for periods from the year 1948-49.

CONSUMER PRICE INDEX: ALL GROUPS INDEX NUMBERS SIX STATE CAPITAL CITIES AND CANBERRA, YEARS 1948-49 TO 1964-65 AND QUARTERS MARCH 1963 TO DECEMBER 1965

(Base of each index: year 1952-53 = 100.0) (a)

The separate city indexes measure price movements within each city individually. They do not compare price levels as between cities.

Period	State Capital Cities—separately and combined							Canberra
	Six State Capital Cities(b)	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	
Year—								
1948-49 . . .	60.9	60.5	61.0	62.1	61.6	60.6	60.7	60.4
1949-50 . . .	66.0	65.6	66.2	67.1	66.2	66.2	64.7	65.1
1950-51 . . .	74.6	74.5	74.6	75.1	74.7	74.4	73.3	74.0
1951-52 . . .	91.4	91.9	91.0	91.8	91.4	90.4	90.4	91.1
1952-53 . . .	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1953-54 . . .	102.0	101.6	102.0	102.0	102.3	103.0	105.0	102.9
1954-55 . . .	102.6	102.3	102.0	102.9	103.5	105.2	104.9	104.2
1955-56 . . .	106.9	105.7	108.1	106.3	106.9	107.9	110.2	107.8
1956-57 . . .	113.1	112.9	114.0	112.0	111.1	112.9	116.9	113.3
1957-58 . . .	114.2	114.5	114.4	114.4	111.9	113.6	117.0	114.0
1958-59 . . .	116.0	115.3	116.6	118.2	114.5	114.7	118.7	115.4
1959-60 . . .	118.9	117.8	120.0	121.2	118.0	116.9	120.8	117.8
1960-61 . . .	123.8	122.1	125.9	125.4	122.9	121.2	127.5	121.4
1961-62 . . .	124.3	122.6	126.3	127.3	122.5	121.6	128.1	123.1
1962-63 . . .	124.5	123.2	126.2	127.7	122.1	122.2	128.0	123.4
1963-64 . . .	125.7	124.5	127.1	129.0	123.5	123.8	129.4	124.3
1964-65 . . .	130.4	128.8	132.2	133.9	128.6	127.6	133.6	128.1
Quarter—								
1963—March . .	124.5	123.3	126.0	127.8	121.9	122.3	128.0	123.2
June . . .	124.9	123.7	126.4	127.9	122.5	122.8	128.2	123.4
September . .	125.1	123.7	126.7	128.4	122.8	122.7	128.8	124.1
December . .	125.0	123.9	126.4	128.2	122.7	123.1	129.0	123.8
1964—March . .	125.8	124.6	127.1	129.2	123.5	124.2	129.8	124.2
June . . .	127.0	125.8	128.3	130.2	125.1	125.3	130.1	125.1
September . .	128.5	127.3	129.6	131.9	126.9	126.6	131.7	126.6
December . .	130.0	128.4	131.8	133.4	128.6	126.6	133.4	128.0
1965—March . .	130.9	129.1	132.9	134.6	128.9	128.0	134.0	128.4
June . . .	132.1	130.3	134.4	135.7	129.9	129.3	135.2	129.5
September . .	133.5	131.8	135.6	138.3	130.7	130.0	137.0	130.8
December . .	135.2	133.3	137.2	140.0	132.7	131.7	138.8	132.3

(a) Figures appearing after the decimal point possess little significance for general statistical purposes. They are inserted to avoid distortions that would occur in rounding off the figures to the nearest whole number.
(b) Weighted average.

The following table shows Consumer Price Index Group Index Numbers for the six State capital cities combined for periods from the year 1948-49.

CONSUMER PRICE INDEX: GROUP INDEX NUMBERS

WEIGHTED AVERAGE OF SIX STATE CAPITAL CITIES, YEARS 1948-49 TO 1964-65
AND QUARTERS MARCH 1961 TO DECEMBER 1965

(Base of each index: year 1952-53 = 100.0) (a)

Period	Food	Clothing and Drapery	Housing	Household Supplies and Equipment	Miscel- laneous	All Groups
Year—						
1948-49 . .	54.1	58.4	72.5	67.0	66.6	60.9
1949-50 . .	58.6	67.4	76.1	71.1	69.6	66.0
1950-51 . .	68.6	77.8	81.0	78.1	76.3	74.6
1951-52 . .	89.9	93.5	89.1	92.9	92.3	91.4
1952-53 . .	100.0	100.0	100.0	100.0	100.0	100.0
1953-54 . .	103.5	100.7	104.8	101.6	99.9	102.0
1954-55 . .	104.3	101.0	108.4	101.4	99.9	102.6
1955-56 . .	110.2	102.0	115.1	101.6	105.9	106.9
1956-57 . .	115.3	103.9	122.1	105.8	118.0	113.1
1957-58 . .	113.3	107.0	127.3	107.5	119.7	114.2
1958-59 . .	115.4	108.2	130.6	108.7	121.2	116.0
1959-60 . .	119.8	109.4	135.2	109.8	123.9	118.9
1960-61 . .	127.7	111.6	144.8	111.2	127.3	123.8
1961-62 . .	125.5	112.8	150.7	112.7	128.1	124.3
1962-63 . .	124.3	113.2	155.0	112.4	128.8	124.5
1963-64 . .	126.0	114.0	159.6	111.0	129.9	125.7
1964-65 . .	133.0	115.6	165.0	111.9	136.1	130.4
Quarter—						
1961—March .	128.6	111.7	145.7	111.3	127.5	124.2
June . .	129.4	112.4	148.0	111.9	127.7	125.0
September .	128.1	112.4	148.5	112.6	127.9	124.8
December .	125.3	112.9	150.5	112.7	128.3	124.3
1962—March .	124.7	112.9	151.0	112.7	128.0	124.1
June . .	123.7	112.9	152.6	112.8	128.2	124.0
September .	124.2	113.0	153.3	112.8	128.4	124.3
December .	124.3	113.2	154.7	112.4	128.7	124.4
1963—March .	124.1	113.2	155.3	112.1	129.0	124.5
June . .	124.5	113.4	156.8	112.4	129.2	124.9
September .	125.0	113.7	157.9	110.6	129.7	125.1
December .	124.5	113.7	159.0	110.8	129.5	125.0
1964—March .	126.0	113.8	159.9	111.1	130.1	125.8
June . .	128.5	114.6	161.7	111.4	130.3	127.0
September .	130.7	115.0	163.0	110.7	133.1	128.5
December .	132.1	115.4	164.4	111.3	136.5	130.0
1965—March .	133.1	115.8	165.3	112.5	137.3	130.9
June . .	135.9	116.3	167.2	112.9	137.3	132.1
September .	139.3	116.3	168.6	113.4	137.8	133.5
December .	139.5	116.6	171.4	113.7	142.7	135.2

(a) Figures appearing after the decimal point possess little significance for general statistical purposes. They are inserted to avoid distortions that would occur in rounding off the figures to the nearest whole number.

The following table shows Consumer Price Index Group Index Numbers for each State capital city and for Canberra for recent years and quarters.

CONSUMER PRICE INDEX: GROUP INDEX NUMBERS
SIX STATE CAPITAL CITIES AND CANBERRA, YEARS 1948-49 TO 1964-65
AND QUARTERS MARCH TO DECEMBER 1965

(Base of each index: year 1952-53 = 100.0) (a)

The index numbers hereunder are designed to measure movements in retail prices of specified groups of items for specified cities individually. They measure variations from time to time and not differences in price level as between cities.

City	Year—						1965			
	1948-49	1952-53	1961-62	1962-63	1963-64	1964-65	Mar. qtr	June qtr	Sept. qtr	Dec. qtr
FOOD GROUP										
Six State Capitals(b) .	54.1	100.0	125.5	124.3	126.0	133.0	133.1	135.9	139.3	139.5
Sydney	52.2	100.0	121.9	121.1	122.6	129.6	129.8	132.7	136.7	137.0
Melbourne	54.9	100.0	127.8	126.0	127.2	133.9	133.8	136.7	139.9	140.0
Brisbane	56.4	100.0	130.8	129.8	133.1	141.5	142.7	145.0	149.7	151.0
Adelaide	56.1	100.0	127.6	126.0	129.1	136.6	136.8	139.4	141.0	140.6
Perth	55.0	100.0	123.5	123.9	125.4	130.5	130.1	133.3	134.4	133.9
Hobart	56.0	100.0	129.0	127.2	128.8	134.5	135.0	137.2	140.9	142.6
Canberra	51.9	100.0	124.6	122.3	123.2	129.4	129.4	132.4	135.9	136.2

CLOTHING AND DRAPERY GROUP										
Six State Capitals(b) .	58.4	100.0	112.8	113.2	114.0	115.6	115.8	116.3	116.3	116.6
Sydney	58.0	100.0	111.4	111.8	112.5	114.2	114.4	114.9	114.9	115.2
Melbourne	58.6	100.0	114.0	114.4	115.2	116.8	116.9	117.5	117.5	117.7
Brisbane	59.2	100.0	116.7	117.0	117.8	119.5	119.7	120.1	120.2	120.6
Adelaide	58.3	100.0	111.2	111.7	112.8	114.4	114.6	115.0	115.0	115.3
Perth	59.6	100.0	111.7	112.0	112.8	114.1	114.3	114.7	114.7	115.0
Hobart	58.0	100.0	114.0	114.5	115.1	116.7	116.9	117.3	117.2	117.5
Canberra	57.8	100.0	110.5	111.0	111.5	113.1	113.3	113.8	113.8	114.0

HOUSING GROUP										
Six State Capitals(b) .	72.5	100.0	150.7	155.0	159.6	165.0	165.3	167.2	168.6	171.4
Sydney	74.2	100.0	147.5	153.4	160.1	166.6	166.8	168.3	168.7	171.1
Melbourne	76.0	100.0	157.5	161.1	164.5	169.2	169.4	172.4	173.3	177.1
Brisbane	67.1	100.0	140.5	144.0	145.2	149.0	149.5	150.4	157.1	157.7
Adelaide	68.7	100.0	153.5	154.9	158.5	164.6	165.4	166.5	167.2	171.5
Perth	62.7	100.0	146.4	150.9	155.9	160.0	160.4	161.5	162.9	165.5
Hobart	70.3	100.0	163.8	168.7	174.0	180.8	182.4	183.5	184.5	185.9
Canberra	70.9	100.0	153.7	162.2	162.6	164.4	164.7	165.0	165.4	166.6

HOUSEHOLD SUPPLIES AND EQUIPMENT GROUP										
Six State Capitals(b) .	67.0	100.0	112.7	112.4	111.0	111.9	112.5	112.9	113.4	113.7
Sydney	67.0	100.0	113.2	112.8	111.3	110.7	110.7	110.8	111.2	111.6
Melbourne	66.1	100.0	114.1	114.0	112.6	115.2	117.0	117.7	118.2	118.4
Brisbane	68.6	100.0	113.0	112.8	111.7	112.7	112.7	113.1	114.2	114.7
Adelaide	69.5	100.0	106.7	106.2	104.4	104.9	104.9	105.2	105.6	106.1
Perth	66.5	100.0	107.3	107.0	105.2	106.4	106.6	106.9	107.9	108.0
Hobart	68.1	100.0	124.3	123.8	123.8	124.5	124.3	124.9	125.6	125.2
Canberra	69.8	100.0	114.0	113.2	112.8	113.2	113.2	113.0	113.3	113.4

MISCELLANEOUS GROUP										
Six State Capitals(b) .	66.6	100.0	128.1	128.8	129.9	136.1	137.3	137.3	137.8	142.7
Sydney	67.7	100.0	127.9	129.3	130.0	135.1	135.9	135.8	136.3	140.9
Melbourne	64.4	100.0	129.3	129.7	130.8	138.3	140.1	140.1	140.5	145.1
Brisbane	69.2	100.0	133.3	134.4	135.2	140.9	141.7	142.4	143.1	147.8
Adelaide	67.2	100.0	121.9	121.6	122.3	129.6	130.2	130.2	130.7	137.3
Perth	67.7	100.0	125.3	125.5	128.5	134.2	136.0	136.2	136.4	142.8
Hobart	63.1	100.0	127.0	127.0	128.2	133.5	133.9	134.7	136.2	141.6
Canberra	69.7	100.0	121.6	121.7	124.1	129.3	130.4	130.5	130.4	135.9

(a) Figures appearing after the decimal point possess little significance for general statistical purposes. They are inserted to avoid distortions that would occur in rounding off the figures to the nearest whole number.
 (b) Weighted average.

Retail Price Index Numbers, 1901 to 1965

The index numbers shown below are presented as a continuous series, but they give only a broad indication of long-term trends in retail price levels. They are derived by linking a number of indexes that differ greatly in scope. The successive indexes used are: from 1901 to 1914, the 'A' Series Retail Price Index; from 1914 to 1946-47, the 'C' Series Retail Price Index; from 1946-47 to 1948-49, a composite of Consumer Price Index Housing Group (partly estimated) and 'C' Series Index excluding Rent; and from 1948-49 onwards, the Consumer Price Index.

RETAIL PRICE INDEX NUMBERS, 1901 TO 1965
SIX STATE CAPITAL CITIES COMBINED

(Base: year 1911 = 100)

Year	Index number	Year	Index number
1901 . .	88	1933 . .	133
1902 . .	93	1934 . .	136
1903 . .	91	1935 . .	138
1904 . .	86	1936 . .	141
1905 . .	90	1937 . .	145
1906 . .	90	1938 . .	149
1907 . .	90	1939 . .	153
1908 . .	95	1940 . .	159
1909 . .	95	1941 . .	167
1910 . .	97	1942 . .	181
1911 . .	100	1943 . .	188
1912 . .	110	1944 . .	187
1913 . .	110	1945 . .	187
1914(a) .	114	1946 . .	190
1915(a) .	130	1947 . .	198
1916(a) .	132	1948 . .	218
1917(a) .	141	1949 . .	240
1918(a) .	150	1950 . .	262
1919(a) .	170	1951 . .	313
1920(a) .	193	1952 . .	367
1921(a) .	168	1953 . .	383
1922(a) .	162	1954 . .	386
1923 . .	166	1955 . .	394
1924 . .	164	1956 . .	419
1925 . .	165	1957 . .	429
1926 . .	168	1958 . .	435
1927 . .	166	1959 . .	443
1928 . .	167	1960 . .	459
1929 . .	171	1961 . .	471
1930 . .	162	1962 . .	469
1931 . .	145	1963 . .	472
1932 . .	138	1964 . .	483
		1965 . .	502

(a) November.

International comparisons

The following table shows index numbers of consumer (retail) prices for various countries. Except where otherwise noted, the year 1958 is taken as base (= 100). The index numbers show fluctuations in prices in each country, and do not measure relative price levels as between countries.

INDEX NUMBERS OF CONSUMER (RETAIL) PRICES IN VARIOUS COUNTRIES ALL GROUPS INDEXES, 1956 TO 1965

(Source: *Monthly Bulletin of Statistics* of the Statistical Office of the United Nations)
(Base: year 1958 = 100)

Period	Argentina (Buenos Aires)	Australia (a)	Belgium	Brazil (Sao Paulo)	Canada	France (b)	Germany, Federal Republic	India	Indonesia (Djakarta)	Ireland	Italy
1956 . .	61	96	96	73	94	85	96	90	n.a.	92	96
1957 . .	76	99	99	87	97	-87-	98	95	n.a.	96	97
1958 . .	100	100	100	100	100	100	100	100	(c) 100	100	100
1959 . .	214	102	101	137	101	106	101	104	126	100	100
1960 . .	272	-106-	102	185	102	110	102	106	169	100	102
1961 . .	309	108	103	256	103	114	105	108	209	103	104
1962 . .	396	108	104	390	104	119	108	112	582	108	109
1963 . .	-491-	-109-	106	675	106	105	111	115	1,254	110	117
1964 . .	600	111	111	1,266	108	108	114	131		117	124
1965 . .	771	116	115	2,048	111	111	118	143		123	129
1965—											
March qtr.	679	114	113	1,808	110	110	116	139		121	128
June "	728	115	115	1,991	110	111	117	139		123	129
Sept. "	800	116	116	2,132	111	112	118	146		124	130
Dec. "	879	118	117	2,261	112	112	119	149		124	131

Period	Japan	Netherlands	New Zealand	Norway	Pakistan (Karachi)	Philippines (Manila)	Republic of South Africa (d)	Sweden	Switzerland	United Kingdom	United States of America
1956 . .	97	92	94	93	89	95	94	91	96	-94-	94
1957 . .	100	98	96	95	97	97	97	95	98	97	97
1958 . .	100	100	100	100	100	100	-100-	100	100	100	100
1959 . .	101	102	104	-102-	97	99	101	101	99	101	101
1960 . .	105	103	105	102	103	103	103	105	101	102	102
1961 . .	110	105	106	105	-105-	105	105	107	103	105	103
1962 . .	118	108	109	111	105	111	106	112	107	-110-	105
1963 . .	127	-113-	111	114	107	117	107	115	111	112	106
1964 . .	132	119	115	120	111	127	110	119	114	115	107
1965 . .	142	126	119	125	117	133	114	125		121	109
1965—											
March qtr.	137	122	118	123	116	130	112	122	116	118	108
June "	142	127	118	125	117	126	113	123	117	121	109
Sept. "	143	127	120	126	118	131	115	127	119	122	109
Dec. "	144	127	121	125	118	132	115	128	121	122	110

(a) Consumer Price Index converted to base 1958 = 100 by Commonwealth Statistician. (b) Beginning 1963, new index—base. 1962 = 100. Before 1963, index for Paris. (c) Base. Average of March–December, 1958 = 100. (d) Index for Europeans only.

NOTE. Symbol — on each side of an index number (e.g., -95-) indicates that two series have been linked during that period. Symbol — between two index numbers indicates that it is not possible to link two series (because of change in scope, etc.) and therefore the index numbers are not comparable with each other even though they are shown on the same base period.

WHOLESALE PRICES AND PRICE INDEXES

Two indexes of wholesale prices of basic materials have been compiled by the Commonwealth Bureau of Census and Statistics. These are:

- (i) The Melbourne Wholesale Price Index;
- (ii) The Wholesale Price (Basic Materials and Foodstuffs) Index.

A special purpose index 'Wholesale Price Index of Electrical Installation Materials' is also published by the Bureau (see page 338). Work is proceeding on the preparation of new series of wholesale price index numbers.

A brief note on the Melbourne Wholesale Price Index, which is now obsolete, is given on page 338. After reviewing the list of items and weighing of the Melbourne Wholesale Price Index, the 1930 Conference of Statisticians resolved that a new index of wholesale prices of basic materials and foodstuffs should be compiled. This index, the Wholesale Price (Basic Materials and Foodstuffs) Index, is compiled monthly and extends back to 1928.

Wholesale Price (Basic Materials and Foodstuffs) Index

Price quotations

The prices used in the index have, in the main, been obtained directly from manufacturers and merchants, and, with a few important exceptions, from Melbourne sources. Apart from locally-produced building materials and one or two minor commodities, however, the price movements may be taken as representative of variations in wholesale prices of the selected items in most Australian markets.

Commodities in the index are priced in their primary or basic form wherever possible and in respect of imported materials as nearly as may be at the point where they first make effective impact on the local price structure. Thus the prices of imported goods are not taken at the time of import, but rather on an ex-bond (or into factory) basis. Broadly, where home-consumption prices exist for local products, they have been used in this index. During the year 1950-51 wool for local manufacture was subsidized, and the home-consumption price for wool was used to calculate the index numbers shown in the table on page 338.

Commodities and grouping

For purposes of this index, 'basic' materials (as opposed to certain of the foodstuffs) are commodities in the primary or basic forms in which they first enter into productive processes carried out in Australia. The list of items is divided into seven main groups, each of which is sub-divided into goods which are mainly imported and goods which are mainly home-produced. The percentage of the total aggregate in 1964-65 contributed by each group was as follows: metals and coal, 16.82; oils, fats and waxes, 7.63; textiles, 3.13; chemicals, 3.28; rubber and hides, 1.37; building materials, 12.09; foodstuffs and tobacco, 55.68. Goods principally imported comprised 23.02 per cent. of the total aggregate in 1964-65, and goods principally home-produced, 76.98. A full list of the commodities and the quantity-multipliers (weights) is published in *Labour Report* No. 51, 1964, page 42.

Method of construction

The index is constructed on the simple aggregative fixed-weights formula. The weights (quantity-multipliers) are based on estimates of the average annual consumption of the commodities in Australia during the period 1928-29 to 1934-35 inclusive. Changes in usage, changes of category as between 'imported' and 'home-produced' for some commodities, and changes in the industrial structure have affected the validity of some of the weights in the index.

Index numbers

Index numbers for each group of commodities, and for all groups combined, for the index of wholesale prices of basic materials and foodstuffs are given in the following table. Current index numbers on the base: Average of three years ended June 1939 = 100 are published monthly in the mimeographed statement *Wholesale Price (Basic Materials and Foodstuffs) Index* and in the *Monthly Review of Business Statistics*. A table showing index numbers computed to the base 1928 = 100 is published in the *Labour Report*.

WHOLESALE PRICE (BASIC MATERIALS AND FOODSTUFFS) INDEX NUMBERS YEARS 1928-29 TO 1964-65 AND MONTHS, 1965-66

(Base of each index: average of 3 years ended June 1939 = 100)

Period	Basic Materials							Foodstuffs and Tobacco (a)	Basic Materials and Foodstuffs		
	Metals and Coal	Oils, Fats and Waxes	Textiles	Chemicals	Rubber and Hides	Building Materials	Total		Goods Principally Imported (b)	Goods Principally Home Produced (a)	Total, All Groups (a)
1928-29 .	127	106	129	121	115	95	114	107	91	118	110
1929-30 .	126	111	99	116	87	94	107	110	94	118	111
1930-31 .	116	117	80	117	73	96	105	91	100	99	99
1931-32 .	108	113	77	119	74	95	101	86	100	92	95
1932-33 .	104	109	75	119	69	95	98	80	97	87	90
1933-34 .	103	84	102	111	80	94	92	84	89	89	90
1934-35 .	97	90	78	102	77	93	89	87	92	89	90
1935-36 .	92	95	100	99	88	93	90	92	95	92	93
1936-37 .	96	99	118	99	111	99	99	98	99	98	99
1937-38 .	101	101	100	100	97	104	102	102	102	101	101

For footnotes see next page.

WHOLESALE PRICE (BASIC MATERIALS AND FOODSTUFFS) INDEX NUMBERS
YEARS 1928-29 TO 1964-65 AND MONTHS, 1965-66—*continued*

(Base of each index: average of 3 years ended June 1939 = 100)

Period	Basic Materials							Food-stuffs and Tobacco (a)	Basic Materials and Foodstuffs		
	Metals and Coal	Oils, Fats and Waxes	Textiles	Chemicals	Rubber and Hides	Building Materials	Total		Goods Principally Imported (b)	Goods Principally Home Produced (a)	Total, All Groups (a)
1938-39 .	103	100	82	101	92	97	99	101	99	100	100
1939-40 .	105	115	104	107	116	108	109	99	111	101	104
1940-41 .	107	137	111	124	126	128	122	107	133	106	114
1941-42 .	117	151	118	137	135	135	133	116	153	112	124
1942-43 .	129	167	147	142	138	163	149	126	176	120	136
1943-44 .	131	170	150	143	140	174	153	130	182	122	140
1944-45 .	131	168	152	143	140	175	152	132	182	124	141
1945-46 .	130	156	152	142	140	177	149	136	178	127	142
1946-47 .	132	145	191	140	131	180	149	139	177	130	144
1947-48 .	146	161	283	148	126	190	166	154	192	145	159
1948-49 .	185	173	342	159	130	198	188	174	201	172	180
1949-50 .	214	184	434	187	143	225	214	196	223	196	204
1950-51 .	256	196	641	242	292	268	264	229	256	240	244
1951-52 .	343	220	577	314	298	370	321	276	288	300	297
1952-53 .	392	234	607	350	224	404	350	293	292	331	319
1953-54 .	388	222	566	323	191	363	332	308	271	339	319
1954-55 .	391	214	510	314	246	372	330	315	277	340	322
1955-56 .	404	220	456	317	328	415	345	325	292	352	334
1956-57 .	409	241	520	344	302	463	367	324	311	357	344
1957-58 .	398	238	437	349	280	453	355	325	301	355	339
1958-59 .	392	231	362	327	293	423	340	332	283	358	336
1959-60 .	395	225	403	331	379	431	347	348	281	375	348
1960-61 .	399	222	387	331	341	439	346	372	278	394	360
1961-62 .	392	212	400	333	302	439	340	332	270	363	336
1962-63 .	388	209	432	317	262	439	336	342	272	368	340
1963-64 .	383	207	484	286	221	473	339	352	275	376	346
1964-65 .	391	207	427	286	242	503	345	364	277	388	353
1965-66—											
July .	394	208	407	288	256	508	347	384	274	406	367
August .	392	208	406	288	271	508	347	400	275	419	376
September .	393	220	412	288	282	509	352	394	281	414	375
October .	389	219	425	326	286	508	354	379	281	404	367
November .	390	219	434	326	292	508	355	372	281	399	364
December .	390	219	436	326	301	505	355	373	280	400	363
January .	389	221	436	326	311	505	356	p371	p281	399	p364
February .	p389	221	p437	337	326	506	p358	p377	p282	p404	p368

(a) Excludes potatoes and onions from 1936-37. (b) Represents only such imported commodities as are included in the Wholesale Price Index and does not measure changes in the prices of all imports.

Melbourne Wholesale Price Index

An index of Melbourne wholesale prices was first compiled in 1912. It related chiefly to basic materials and foods weighted in accordance with consumption in the years immediately preceding that year. Neither the list of items nor the weighting was varied, except for some changes in the building materials group in 1949. The series has some historical significance as a measure of changes, since the year 1861, in the prices of its component items combined in the proportions in which they were in common use about the year 1910. A description of the index and a list of the commodities included in it were published in *Labour Report* No. 38, 1949, pages 43-5. Index numbers up to the year 1961, the last period for which the index was compiled, were published in *Year Book* No. 48, 1962.

Wholesale Price Index of Electrical Installation Materials

This special purpose index was introduced in 1964 and index numbers have been published for quarterly periods from August 1959 onwards. In addition to its use in connection with the Bureau's constant price estimates in the national accounting field, the index has a direct value as a measure of changes in aggregate cost of materials used in an important part of the building industry (other than house-building). It is compiled and published quarterly.

Commodities and grouping

The items in this index have been selected as representative of materials used in electrical installation in structures such as hospitals, schools, factories and multi-storied commercial buildings and flats. These items are divided into three main groups for which separate indexes are compiled in addition to the All Groups index. The combination of materials selected is fixed as to quantity and quality. A list of the components of the index is set out below with the percentage contribution of each to the All Groups index in the reference base year 1959-60.

Price quotations

The items are priced as at the middle of the month for which index numbers are published. The basis of pricing is the price to electrical contractors, delivered on site or into store, metropolitan area Sydney or Melbourne. The price series used relate to specific standards for each item and in some cases are combinations of prices for different makes, types, etc. The units of quantity specified as the basis for collecting prices are representative lots normally purchased by electrical contractors, inclusive of quantity discounts and packing and quantity extras, etc.

Method of construction

The index is a fixed-weights index with the reference base: year 1959-60 = 100. In general, the weights were derived from information relating to the values of materials used in selected representative projects in Sydney and Melbourne during the three years 1960-61 to 1962-63. The projects selected for this purpose had a minimum electrical materials and labour content of \$10,000. Selected representative items carry the weights of similar items not directly priced. The index is compiled by the method known as the weighted average of price relatives. Base period percentage value weights are applied to quarterly indexes of price movement relative to 1959-60.

WHOLESALE PRICE INDEX OF ELECTRICAL INSTALLATION MATERIALS COMPOSITION AND WEIGHTING PATTERN AS AT REFERENCE BASE YEAR 1959-60

Component		Percentage contribution to All Groups Index
1. CONDUCTORS GROUP	Mains—	40.00
	Insulated cables	14.79
	Glands	0.70
	Bare copper strand	0.50
	Copper bus-bar	3.50
		19.49
	Circuits—	
	Insulated cables and wire	19.08
	Bare copper strand	1.43
		20.51
2. CONDUIT AND ACCESSORIES GROUP	Conduit and ducting—	25.00
	Metal conduit	10.79
	Metal and plastic ducting	9.46
		20.25
	Accessories—	
	Metal and plastic junction boxes	2.59
	Metal and plastic accessories—other	2.16
		4.75
3. SWITCH-BOARD AND SWITCH-GEAR MATERIAL GROUP	Bakelite accessories—	35.00
	Mounting blocks	0.65
	Switches	1.40
	Terminal boxes	0.10
		2.15
	Fluorescent components and lamps—	
	Fluorescent tubes and starters	1.37
	Incandescent lamps	0.58
		1.95
	Iron clad accessories—	
	Switch plug	1.67
	Plug top	0.64
	Other accessories	1.30
		3.61
	Switch-board accessories' components—	
	Mild steel	3.07
	Aluminium bar	0.86
	Contactors	4.90
	Circuit breakers	11.00
	Other accessories	7.46
		27.29
Total.		100.00

Index numbers

Index numbers for each group of items and for all groups combined for the index of wholesale prices of electrical installation materials are given in the following table. Current index numbers are published quarterly in the mimeographed statement *Wholesale Prices—Price Index of Electrical Installation Materials*.

WHOLESALE PRICE INDEX OF ELECTRICAL INSTALLATION MATERIALS
GROUP INDEX NUMBERS, YEARS 1959-60 TO 1964-65 AND
AUGUST 1959 TO FEBRUARY 1965

(Base of each index: year 1959-60 = 100.0) (a)

Period	Conductors	Conduit and Accessories	Switch-board and Switch-gear Material	All Groups
Year—				
1959-60 . . .	100.0	100.0	100.0	100.0
1960-61 . . .	99.5	102.3	100.9	100.7
1961-62 . . .	98.7	102.8	99.8	100.1
1962-63 . . .	96.8	103.6	100.5	99.8
1963-64 . . .	93.2	103.7	100.8	98.5
1964-65 . . .	110.6	104.6	105.2	107.2
1959-60—August .	99.1	96.1	99.4	98.5
November .	99.7	100.6	99.2	99.8
February .	99.9	101.7	100.7	100.6
May .	101.3	101.7	100.7	101.2
1960-61—August .	101.1	101.9	100.9	101.2
November .	99.7	102.2	100.9	100.7
February .	98.6	102.5	100.8	100.4
May .	98.7	102.5	101.1	100.5
1961-62—August .	98.6	102.5	99.6	100.0
November .	98.6	102.5	99.7	100.0
February .	98.7	102.5	99.9	100.1
May .	98.7	103.6	99.9	100.4
1962-63—August .	97.9	103.6	100.1	100.1
November .	97.9	103.6	100.6	100.3
February .	97.9	103.6	100.6	100.3
May .	93.4	103.6	100.7	98.5
1963-64—August .	93.3	103.4	100.8	98.5
November .	93.3	103.8	100.8	98.6
February .	93.5	103.8	100.8	98.7
May .	92.6	103.8	100.9	98.3
1964-65—August .	96.4	104.4	103.8	101.0
November .	103.3	104.4	104.7	104.0
February .	121.3	104.4	106.0	111.7

(a) The figures appearing after the decimal points are inserted to avoid the distortions that would sometimes occur in rounding off the figures to the nearest whole number.

EXPORT PRICES AND PRICE INDEXES

Previous Export Price Indexes

1901 to 1917

An annual index of export prices has been published by the Bureau since its inception. The first index was compiled annually for the years 1901 to 1916-17. The method of computation was to select all articles of export which were recorded by units of quantity, and to apply to the quantities of these export commodities actually exported during any year the average price per unit ruling in the year 1901 (adopted as the base year). The 'total value' so obtained was divided into the total recorded value of these exports for the year concerned and the result (multiplied by 1,000) was the export price index number for that year.

1918 to 1930

The method was changed in 1918. Weights for all principal exports were calculated, based on the average quantities of exports for the nineteen and a half years from 1 January 1897 to 30 June 1916. To these weights were applied the 'average unit export values' of each export in successive years, and a weighted aggregative index of 'price' variations was derived. This index was published for the years 1897 to 1929-30. Particulars of this index were last published in Year Book No. 24, page 147.

1928 to 1962

After the 1914-18 War the relative importance of different exports changed considerably, and the pattern of exports varied considerably from year to year. For these reasons two new series of monthly export price indexes—one using fixed weights and the other using changing weights—were published in 1937, compiled back to 1928. The data on which both series were based differed from those used in the previous series of annual index numbers. The most important change was the use of actual (or calculated) export prices in place of the 'unit values' declared at the Customs. Brief notes on these two indexes are given below. A full description of both indexes was last published in Year Book No. 48, 1962, pages 500-4.

The Fixed Weights Index. This was a weighted aggregative index of price variations. It was compiled back to 1928, with that year taken as base. In later years it was published on the base: average of three years ended June 1939 = 100. The original weights (used for the period 1928 to 1936) were the average annual exports (production in the case of gold) during the five years 1928-29 to 1932-33. From July 1936 the weights were revised and were based on average annual exports (production in the case of gold) during the three years 1933-34 to 1935-36. This index was published from 1937 until July 1962, after which it was replaced by the current Export Price Index described below.

The Changing Weights Index. This index was designed for shorter period comparisons—from one or more months of the current year to the corresponding months of the previous year. In computing these index numbers the 'quantity multipliers' were the quantities actually exported (sold, in some cases) in the months (or periods) to which the index numbers related. This index was discontinued in 1962.

The current Export Price Index

The current Export Price Index was first published in October 1962, but index numbers were compiled back to July 1959. The reference base of this index is: year 1959-60 = 100. This index is a fixed-weights index, and its purpose (as was that of the previous fixed-weights index) is to provide comparisons monthly, over a limited number of years, of the level of export prices of the selected items, making no allowance for variations in quantities exported. The index numbers are thus measures of price change only. The price series used in the index relate to specified standards for each commodity and in most cases are combinations of prices for a number of representative grades, types, etc. For some commodities price movements in the predominant market, or markets, are used, while for other commodities average realizations in all export markets are used. As nearly as possible, prices used are on the basis f.o.b. at the main Australian ports of export. The index is compiled by the method known as 'weighted average of price relatives'.

Composition and weighting

There are twenty-nine items in the current index compared with twenty items in the previous index. These twenty-nine items have constituted approximately 83 per cent of the total value of Australian exports in recent years. The weights for the current index are based on average annual values of exports during the five years 1956-57 to 1960-61.

The following table sets out a list of the items, and groups of items, in the index, together with the percentage contribution of each item and group to the All Groups index in the reference base year 1959-60. The weights used for some of the items are adjusted to cover some related commodities which are not priced directly. The most important instances of this are wool, which includes wool exported on sheepskins, and copper, zinc, lead and silver, which include the estimated metallic content of ores and concentrates exported. In the previous index the weight for gold was derived from production instead of export figures. For the period 1956-57 to 1960-61 production and exports of gold were similar, and therefore in the current index the weight for gold (as for the other items) is based on average annual exports during the period.

EXPORT PRICE INDEX

LIST OF ITEMS AND PERCENTAGE CONTRIBUTION OF ITEMS AND GROUPS TO
ALL GROUPS INDEX IN 1959-60

Group and item	Percentage contribution to All Groups Index in 1959-60	Group and item	Percentage contribution to All Groups Index in 1959-60
Wool	50.73	Canned—Pineapples	0.20
Meats—		Apricots	0.11
Beef	6.71	Peaches	0.37
Lamb	0.76	Pears	0.68
Mutton	0.59	<i>Total, dried and canned fruits</i>	<i>2.54</i>
Canned—Beef	1.65	Sugar	3.99
Mutton	0.21	Hides and tallow—	
<i>Total, meats</i>	<i>9.92</i>	Cattle hides	0.72
Dairy produce—		Tallow	0.54
Processed milk	1.36	<i>Total, hides and tallow</i>	<i>1.26</i>
Butter	4.02	Metals and coal—	
Cheese	0.64	Coal	0.63
Eggs	0.47	Iron and steel	3.48
<i>Total, dairy produce</i>	<i>6.49</i>	Copper	1.57
Cereals—		Zinc	1.23
Wheat and flour	10.11	Lead	2.97
Barley	1.77	Silver	0.66
Oats	0.66	<i>Total, metals and coal</i>	<i>10.54</i>
<i>Total, cereals</i>	<i>12.54</i>	Gold	1.99
Dried and canned fruits—		Total	100.00
Dried—Sultanas	1.06		
Currants	0.12		

Index numbers

Index numbers for each of the groups and 'All Groups' are shown in the table on page 343. The yearly index numbers are simple averages of the twelve monthly index numbers in each year.

Link between current and previous indexes

In order to show approximate movements in export prices over a long period, the 'All Groups' indexes of the previous and current series have been linked together at the year 1959-60, the earliest year for which the new index has been compiled. The table on page 344 shows this linked series and a long-term price index for wool, which is the most important single component in the movement of the 'All Groups' index.

EXPORT PRICE INDEX NUMBERS

YEARS 1959-60 TO 1964-65 AND MONTHS JULY 1962 TO FEBRUARY 1966

(Base of each index: year 1959-60 = 100)

Period	Wool	Meats	Dairy Produce	Cereals	Dried and Canned Fruits	Sugar	Hides and Tallow	Metals and Coal	Gold	All Groups
1959-60	100	100	100	100	100	100	100	100	100	100
1960-61	92	104	82	99	99	101	92	97	100	95
1961-62	97	100	81	106	95	91	84	91	100	96
1962-63	104	101	88	107	90	107	72	89	100	101
1963-64	120	105	93	107	98	175	73	101	100	114
1964-65	102	110	94	107	p100	100	91	123	101	p105
1962-63—										
July	98	99	85	112	90	86	76	89	100	97
August	92	101	85	112	91	88	75	86	100	94
September	92	102	85	111	91	86	74	87	100	94
October	96	102	85	109	91	92	74	86	100	96
November	98	102	88	110	91	91	74	88	100	97
December	101	101	88	105	91	94	74	88	100	98
January	112	101	88	105	91	93	73	88	100	104
February	110	101	88	104	91	109	70	91	100	104
March	112	99	90	104	89	128	69	91	100	105
April	112	98	90	104	88	121	69	91	100	105
May	112	100	90	104	88	128	68	90	100	105
June	115	102	93	103	89	165	68	95	100	109
1963-64—										
July	114	103	94	103	92	164	67	94	100	109
August	110	103	94	102	94	165	66	96	100	107
September	112	105	94	102	97	159	64	94	100	108
October	117	105	94	107	98	163	68	96	100	111
November	128	103	94	107	99	198	74	96	100	118
December	126	100	94	109	100	187	74	101	100	117
January	128	99	92	111	100	205	73	104	100	119
February	130	101	91	111	100	191	73	104	100	120
March	130	106	91	109	98	192	74	103	100	120
April	121	111	92	109	99	165	78	106	100	115
May	110	113	92	108	99	166	79	111	100	110
June	112	110	92	108	101	146	81	111	100	110
1964-65—										
July	112	109	92	109	101	139	81	114	100	110
August	112	110	92	110	100	122	83	117	100	110
September	110	109	92	111	100	113	85	119	101	109
October	108	110	93	112	100	104	87	123	101	109
November	107	110	95	110	100	102	89	126	101	108
December	101	111	95	104	100	94	90	126	101	104
January	98	112	95	106	100	89	90	124	101	102
February	99	111	95	104	100	86	93	128	101	103
March	94	110	95	104	100	85	94	129	101	101
April	94	111	96	104	100	83	98	127	101	101
May	96	112	93	104	100	91	100	122	101	101
June	96	110	91	104	p100	91	99	117	101	p100
1965-66—										
July	98	114	90	104	p102	101	100	117	101	p102
August	98	115	89	104	p102	107	102	117	101	p102
September	99	116	89	105	p101	100	101	118	101	p103
October	105	114	88	106	p102	93	99	120	100	p106
November	108	116	88	106	p101	85	100	120	100	p107
December	108	p117	87	107	p102	82	100	122	100	p108
January	108	p118	85	109	p102	p78	109	p122	100	p108
February	p108	p121	84	109	p102	p84	121	p121	100	p108

EXPORT PRICE INDEX NUMBERS—LINKED SERIES
1936-37 TO 1964-65

(Base of each index: Year 1959-60 = 100)

Period	Wool	All Groups	Period	Wool	All Groups
1936-37	29	30	1951-52	133	125
1937-38	23	27	1952-53	145	128
1938-39	19	22	1953-54	145	125
1939-40	23	26	1954-55	127	114
1940-41	24	28	1955-56	109	105
1941-42	24	28	1956-57	136	117
1942-43	28	30	1957-58	111	102
1943-44	28	31	1958-59	85	90
1944-45	28	34	1959-60	100	100
1945-46	28	39	1960-61	92	95
1946-47	41	54	1961-62	97	96
1947-48	68	75	1962-63	104	101
1948-49	86	88	1963-64	120	114
1949-50	111	101	1964-65	102	p105
1950-51	235	173			

WAGES, EARNINGS AND HOURS

Arbitration and Wages Boards Acts and associated legislation

Particulars regarding the operation of Commonwealth and State Laws for the regulation of wages, hours and other conditions of employment were first compiled for the year 1913, and revised particulars have appeared annually in the *Labour Report* and in issues of the Year Book prior to No. 38. A summary of the Commonwealth legislation and brief particulars of Commonwealth and State industrial tribunals are given in the following paragraphs.

Commonwealth industrial legislation and tribunals

Under placitum (xxxv) of section 51 of the Commonwealth of Australia Constitution, the Commonwealth Parliament is empowered to make laws with respect to 'conciliation and arbitration for the prevention and settlement of industrial disputes extending beyond the limits of any one State'. The Parliament has made such a law, namely the *Conciliation and Arbitration Act 1904-1965*.

This Act defines an 'industrial dispute' as:

'(a) A dispute (including a threatened, impending or probable dispute) as to industrial matters which extends beyond the limits of any State; and (b) a situation which is likely to give rise to a dispute as to industrial matters which so extends; and includes—(c) such a dispute in relation to employment in an industry carried on by, or under the control of, a State or an authority of a State; (d) a dispute in relation to employment in an industry carried on by, or under the control of, the Commonwealth or an authority of the Commonwealth, whether or not the dispute extends beyond the limits of any one State; and (e) a claim which an organization is entitled to submit to the Commission under section eleven A of the *Public Service Arbitration Act 1920-1960* or an application or matter which the Public Service Arbitrator has refrained from hearing, or from further hearing or from determining under section fourteen A of that Act, whether or not there exists in relation to the claim, application or matter a dispute as to industrial matters which extends beyond the limits of any one State.'

The Conciliation and Arbitration Act was extensively amended by an Act (No. 44 of 1956) assented to on 30 June 1956. This amendment altered the structure of the arbitration machinery by separating the judicial functions from the conciliation and arbitration functions. The Commonwealth Industrial Court was established to deal with judicial matters under the Act, and the Commonwealth Conciliation and Arbitration Commission to handle the functions of conciliation and arbitration. A summary of the provisions of the *Conciliation and Arbitration Act 1904-1965* is given in the following paragraphs.

The Commonwealth Industrial Court is at present composed of a Chief Judge and four other Judges. The jurisdiction of the Court shall be exercised by not less than two Judges, except in the following circumstances. A single Judge may exercise the jurisdiction of the Court with respect to the dismissal or injury of an employee on account of industrial action, interpretation of awards, questions concerning eligibility of membership of an organization, disputes between an organization and its members and a prescribed matter of practice or procedure. A single Judge may refer a question of law for the opinion of the Court constituted by not less than two Judges. The Court is a Superior Court of Record with the same power to punish contempts of its power and authority as is possessed by the High Court. In general, decisions of the Industrial Court are final; however, an appeal lies to the High Court, but only when the latter grants leave to appeal. The Act provides for the registration of associations of employees and employer., and for inquiries to be held concerning disputed elections in organizations; and certain powers in connection therewith are, by the Act, given to the Industrial Court. Provision is also made for the Commission to exercise the powers of the Court with regard to an application for cancellation of registration of an organization. Any such change of jurisdiction must be notified by proclamation. This provision could be used if the powers of the Court in this regard were declared, in whole or in part, to be invalid.

Special provision is made concerning the right of audience before the Commonwealth Industrial Court. Briefly, except in proceedings which, in general, involve questions of law or offences against the Act, parties are able to elect whether to appear personally or to be represented by lawyers or officials. Even in proceedings involving questions of law, except appeals from decisions by other Courts to the Industrial Court, on matters arising under this Act or the *Public Service Arbitration Act 1920-1960*, the parties may, if they wish and the Court grants leave, be represented by officials.

The Commonwealth Conciliation and Arbitration Commission at the end of 1965 was composed of a President, five Deputy Presidents, a Senior Commissioner, ten Commissioners and three Conciliators. The Commission is empowered to prevent or settle industrial disputes by conciliation or arbitration, and to make suggestions and to do such things as appear right and proper for (a) effecting a reconciliation between parties to industrial disputes; (b) preventing and settling industrial disputes by amicable agreement; and (c) preventing and settling, by conciliation or arbitration, industrial disputes not prevented or settled by amicable agreement. The Commission may exercise its powers of its own motion or on the application of a party.

The President may assign a Commissioner to deal with industrial disputes relating to particular industries, or members of the Commission to deal with a particular industrial dispute. However, subject to the approval of the President, it is the duty of the Senior Commissioner to organize and allocate the work of the Commissioners and Conciliators. When an industrial dispute occurs or is likely to occur, a Commissioner shall take steps for the prompt prevention or settlement of that dispute by conciliation or, if in his opinion conciliation is unlikely to succeed or has failed, by arbitration. A Commissioner may arrange with the Senior Commissioner for a Conciliator to assist the parties to reach an amicable agreement and shall do so if the parties so request. If an agreement is reached a memorandum of its terms shall be made in writing, and may be certified by the Commission. A certified memorandum shall have the same effect as an award.

Only the Commission in Presidential Session, that is, the Commission constituted by at least three presidential members nominated by the President, has the power to make awards, or to certify agreements, concerning standard hours, basic wages and long-service leave. Upon application by a party to an industrial dispute, a Commissioner shall consult with the President as to whether in the public interest any matter in dispute should be dealt with by a Commission constituted by not less than three members nominated by the President, at least one of whom shall be a presidential member and one, where practicable, the Commissioner concerned. The President may direct the Commission to hear the matter in dispute; however, after consideration, the Commission may refer the matter in dispute back for determination to the Commissioner originally dealing with the dispute.

An appeal against the decision of a Commissioner shall be heard by not less than three members nominated by the President, of whom at least two shall be presidential members of the Commission. However, an appeal will not be heard unless the Commission considers it is necessary as a matter of public interest. The President, after taking account of the views of the parties to a dispute, may appoint a member of the Commission to take evidence on behalf of a presidential bench of the Commission, so that it may have this evidence before it when it commences its hearing.

Full benches of the Commission not constituted by the same persons may sit in joint session at the direction of the President when he considers it desirable and has the opinion that a question is common to the matters before those benches. A joint session may be held whether the benches concerned are constituted pursuant to the Conciliation and Arbitration Act or the *Public Service Arbitration Act*, and whether they are constituted to hear references or appeals. However, it is left to each appropriate full bench to determine any of the matters before it.

Provision is also made in the Act for a presidential member of the Commission to handle industrial matters in connection with the maritime industries, the Snowy Mountains Area and the stevedoring industry, except in those matters for which the Act requires that the Commission shall be constituted by more than one member. The Commonwealth Conciliation and Arbitration Commission also deals with disputes and industrial matters, interstate or intra-state, associated with undertakings or projects of the Commonwealth Government which have been declared by the Minister to be Commonwealth projects for the purposes of this Act. In effect, this places employees of Commonwealth projects, so declared, under the jurisdiction of the Commission. The Minister has the power to exempt certain persons or classes of persons working on these projects from the jurisdiction of the Commission.

The Commission may make an award in relation to an industrial dispute concerning employees of a Commonwealth project or when the Public Service Arbitrator refrains from dealing with claims made by a Public Service employee organization or consents to the claims being presented to the Commission, though such an award may be inconsistent with a law of the Commonwealth relating to salaries, wages, rates of pay or terms or conditions of service of employees in the Public Service as defined by section three of the *Public Service Arbitration Act* 1920–1960, not being the *Commonwealth Employees' Compensation Act* 1930–1964, the *Commonwealth Employees' Furlough Act* 1943–1959, the *Superannuation Act* 1922–1965 or any other prescribed Act.

The Act provides that where a State law, or an order, award, decision or determination of a State industrial authority is inconsistent with or deals with a matter dealt with in an award of the Commission, the latter shall prevail, and the former, to the extent of the inconsistency or in relation to the matter dealt with, shall be invalid.

For further particulars regarding Commonwealth arbitration legislation, *see* the annual *Labour Report*. For information concerning the Australian Stevedoring Industry Authority and the Coal Industry Tribunal *see* the Transport and Communication chapter and the Mineral Industry chapter respectively of this Year Book, and for further information on the Commonwealth Public Service Arbitrator *see* the *Labour Report*.

State industrial tribunals—New South Wales

The controlling authority is the Industrial Commission of New South Wales, consisting of a President and seven other Judges. Subsidiary tribunals are the Conciliation Commissioners, the Apprenticeship Commissioner, Conciliation Committees and Apprenticeship Councils constituted for particular industries. Each Conciliation Committee consists of a Conciliation Commissioner as Chairman and equal numbers of representatives of employers and employees. The Apprenticeship Commissioner and the members of the Conciliation Committee for an industry constitute the Apprenticeship Council for the industry. These subsidiary tribunals may make awards binding on industries, but an appeal to the Industrial Commission may be made against any award. Special Commissioners with conciliatory powers and limited arbitration powers may be appointed. Compulsory control commenced in 1901, after the earlier Acts of 1892 and 1899 providing for voluntary submission of matters in dispute had proved abortive.

Victoria

The authorities are separate Wages Boards for the occupations and industries covered, each consisting of a chairman and equal numbers of representatives of employers and employees, and a Court of Industrial Appeals, the latter presided over by a Judge of the County Court. The system was instituted in the State in 1896, and represented the first example in Australia of legal regulation of wage rates.

Queensland

Legal control was first instituted in 1908 with the passing of the Wages Boards Act. 'The *Industrial Conciliation and Arbitration Act* of 1961' established the Industrial Conciliation and Arbitration Commission and preserved and continued in existence the Industrial Court. The Industrial Court is constituted by the President (a Judge of the Supreme Court of Queensland) sitting alone, and the Full Industrial Court by the President and two Commissioners. The Conciliation and Arbitration Commission is constituted by a Commissioner sitting alone; and the Full Bench of the Commission by at least three Commissioners. Not more than five Commissioners shall be appointed. A Commissioner shall not be capable of being a member of the Executive Council or of the Legislative Assembly, and shall not take part in the management of any business.

South Australia

The principal tribunal is the Industrial Court of South Australia, composed of the President (a person eligible for appointment as a Judge of the Supreme Court) who may be joined by two assessors employed in the industry concerned: Deputy Presidents may also be appointed. There are also Industrial Boards for the various industries, consisting of a chairman and equal numbers

of representatives of employers and employees. Another tribunal provided for under the Industrial Code is the Board of Industry, composed of a President, who shall be the President or a Deputy President of the Industrial Court, and four Commissioners. Broadly speaking, the functions of these three tribunals are: (i) the Industrial Court delivers awards concerning workers who do not come under the jurisdiction of the Industrial Boards, appoints Boards of Reference and hears appeals from decisions of Industrial Boards and Boards of Reference; (ii) the determinations of the Industrial Boards apply to most industries in the metropolitan area; however, for employees of the Public Service, Railways, and councils of a municipality or district, determinations of Industrial Boards apply to the whole of the State; (iii) the Board of Industry declares, for the whole of the State, the 'living wage' (see page 378).

Western Australia

Legal control dates back to 1900. The present system of control comprises a four-man Western Australian Industrial Commission and an Industrial Appeal Court consisting of three Supreme Court judges who are nominated by the Chief Justice of Western Australia. A Commissioner may, in relation to any dispute or other matter, refer such matters to the Commission in Court Session. Similarly, appeals from decisions of a single Commissioner are heard by the other three Commissioners acting as the Commission in Court Session, but such hearings are restricted to the evidence and matters raised in the proceedings before the single Commissioner. The Commission in Court Session fixes and adjusts the basic wage. Appeals from the Commission to the Industrial Appeal Court are limited to matters which are erroneous in law or in excess of jurisdiction. The Court has the power to impose penalties for disobedience of orders made by the Commission.

The Western Australian Coal Industry Tribunal, established under the *Mining Act 1904-1965*, has power to determine any industrial matter in the coal mining industry. It consists of a chairman and four other members (two representatives each of employers and employees). Boards of reference may be appointed by the Tribunal and decisions of the Tribunal may be reviewed by the Court of Arbitration on the application of a party subject to the decision.

Tasmania

The authority consists of Wages Boards for separate industries, comprising a Chairman (who is common to all Wages Boards) appointed by the Governor, and equal numbers of representatives of employers and employees appointed by the Minister administering the Act. The system was instituted in 1910.

Incidence of industrial awards, determinations and agreements

In May 1963 a survey was conducted to ascertain the approximate proportions of employees affected by awards, determinations and registered industrial agreements under the jurisdiction of Commonwealth and State industrial authorities. The proportions of employees not so affected by awards, etc. (including those affected by unregistered industrial agreements) were also obtained. The scope, results, etc., of this survey were published in *Labour Report* No. 51, 1964, and in a mimeographed statement (S.B. 383 of 11 February 1964).

Rates of wage and hours of work

This section contains indexes (with base: year 1954 = 100) of minimum weekly and hourly rates of wage and standard hours of work for adult males and adult females for Australia and each State. In the indexes there are fifteen industry groups for adult males and eight industry groups for adult females. For relevant periods these indexes replace cognate indexes (base: year 1911 = 1,000 for males and April 1914 = 1,000 for females) published in Year Books before No. 46, 1960. The current indexes are based on the occupation structure existing in 1954. Weights for each industry and each occupation were derived from two sample surveys made in that year. The first was the Survey of Awards in April 1954, which showed the number of employees covered by individual awards, determinations and agreements. This provided employee weights for each industry as well as a basis for the Survey of Award Occupations made in November 1954. This second survey showed the number of employees in each occupation within selected awards, etc., thereby providing occupation weights.

The industrial classification used in the current indexes, shown in the table on page 349, does not differ basically from the previous classification, the alterations being largely in the arrangement of classes. The former Pastoral, agricultural, etc., group and the Domestic part of the group Amusement, hotels, personal service, etc. are excluded from the current indexes because of coverage difficulties.

The minimum wage rates and standard hours of work used in the current indexes are for representative occupations within each industry. They have been derived entirely from representative awards, determinations and agreements in force at the end of each month or quarter, commencing with March 1939 for adult males and March 1951 for adult females. From January 1957 particulars for adult males have been available as at the end of each month. The index for adult males includes rates and hours for 3,415 award designations. However, as some of these designations are operative within more than one industry, or in more than one State, the total number of individual award occupations is 2,313. For adult females, the corresponding numbers are 1,100 and 515. Using the industry and occupation weights derived from the surveys described above, these rates and hours were combined to give weighted averages for each industry group for each State and Australia. Weighted averages of the components of the total minimum weekly wage rate, i.e. basic wage, margin and loading, were calculated separately for employees covered by Commonwealth awards, etc., and for those covered by State awards, etc. (see pages 350-1).

Because the indexes are designed to measure movements in prescribed minimum rates of 'wages' as distinct from 'salaries', those awards, etc. which relate solely or mainly to salary earners are excluded.

A more detailed description of the current indexes of minimum rates of wage and standard hours of work is given in the *Labour Report*, which also contains an extensive tabular presentation of the minimum rates of wage for adult males and females in the principal occupations in the capital city of each State. Further particulars of wage rates and index numbers will be found in a mimeographed statement, *Minimum Wage Rates, March 1939 to June 1965*. Current figures are published in the monthly bulletin *Wage Rates and Earnings*.

Weekly wage rates—adult males

The following table shows, for each State and Australia, the weighted average minimum weekly rates of wage payable to adult male workers for a full week's work, and index numbers at the dates specified.

WEEKLY-WAGE RATES: ADULT MALES, ALL GROUPS(a), STATES DECEMBER 1945 TO 1965

WEIGHTED AVERAGE MINIMUM WEEKLY RATES(b) PAYABLE FOR A FULL WEEK'S WORK
(EXCLUDING OVERTIME) AND INDEX NUMBERS OF WAGE RATES

End of December—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
RATES OF WAGE(c) (\$)							
1945 . .	12.25	12.11	11.81	11.60	12.03	11.56	12.06
1950 . .	20.62	20.18	19.52	19.79	20.06	19.80	20.20
1955 . .	30.52	29.56	28.35	28.50	30.01	29.36	29.70
1960 . .	36.28	34.99	35.07	34.22	35.81	35.15	35.50
1965 . .	40.98	40.32	41.64	39.44	40.48	40.64	40.70

INDEX NUMBERS

(Base: Weighted Average Wage Rate for Australia, 1954 = 100)

1945 . .	43.4	42.9	41.8	41.1	42.6	40.9	42.7
1950 . .	73.0	71.4	69.1	70.1	71.0	70.1	71.5
1955 . .	108.1	104.7	100.4	100.9	106.3	104.0	105.2
1960 . .	128.5	123.9	124.2	121.2	126.8	124.5	125.7
1965 . .	145.1	142.8	147.4	139.6	143.4	143.9	144.1

(a) Excludes rural. (b) As prescribed in awards, determinations and agreements. (c) The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends.

The following table shows for Australia the weighted average minimum weekly rates of wage and index numbers in each industry group and for all groups (excluding rural) at the dates specified.

**WEEKLY WAGE RATES: ADULT MALES, INDUSTRY GROUPS, AUSTRALIA
DECEMBER, 1945 TO 1965**

WEIGHTED AVERAGE MINIMUM WEEKLY RATES(a) PAYABLE FOR A FULL WEEK'S WORK
(EXCLUDING OVERTIME) AND INDEX NUMBERS OF WAGE RATES

Industry group	End of December—				
	1945	1950	1955	1960	1965
RATES OF WAGE(b)					
(\$)					
Mining and quarrying	13.87	25.96	36.68	41.47	48.53
Manufacturing—					
Engineering, metals, vehicles, etc.	12.22	20.17	29.48	35.02	39.65
Textiles, clothing and footwear.	11.58	19.74	28.50	34.04	38.61
Food, drink and tobacco	11.99	20.14	29.58	35.22	40.47
Sawmilling, furniture, etc.	11.79	19.60	28.88	34.62	39.54
Paper, printing, etc.	12.77	21.42	31.25	37.92	43.01
Other manufacturing	11.86	19.76	29.13	34.72	39.66
<i>All manufacturing groups</i>	<i>12.07</i>	<i>20.08</i>	<i>29.41</i>	<i>35.05</i>	<i>39.87</i>
Building and construction	11.97	19.86	29.55	35.75	41.36
Railway services	11.78	19.58	29.09	34.65	39.91
Road and air transport	12.16	19.79	29.42	35.25	40.68
Shipping and stevedoring(c)	11.76	19.66	27.69	34.46	39.59
Communication	12.38	21.33	31.65	38.49	47.46
Wholesale and retail trade	11.94	20.08	29.78	35.71	40.43
Public authority (n.e.i.) and community and business services	11.38	19.21	28.98	34.81	40.19
Amusement, hotels, personal service, etc.	11.52	19.23	28.36	33.73	38.53
<i>All industry groups(d)</i>	<i>12.06</i>	<i>20.20</i>	<i>29.70</i>	<i>35.50</i>	<i>40.70</i>

INDEX NUMBERS

(Base: Weighted Average Weekly Wage Rate for Australia, 1954 = 100)

Mining and quarrying	49.1	91.9	129.9	146.8	171.8
Manufacturing—					
Engineering, metals, vehicles, etc.	43.3	71.4	104.4	124.0	140.4
Textiles, clothing and footwear	41.0	69.9	100.9	120.5	136.7
Food, drink and tobacco	42.5	71.3	104.7	124.7	143.3
Sawmilling, furniture, etc.	41.8	69.4	102.3	122.6	140.0
Paper, printing, etc.	45.2	75.9	110.7	134.3	152.3
Other manufacturing	42.0	70.0	103.2	122.9	140.4
<i>All manufacturing groups</i>	<i>42.7</i>	<i>71.1</i>	<i>104.1</i>	<i>124.1</i>	<i>141.2</i>
Building and construction	42.4	70.3	104.6	126.6	146.4
Railway services	41.7	69.3	103.0	122.7	141.3
Road and air transport	43.0	70.1	104.2	124.8	144.0
Shipping and stevedoring(c)	41.6	69.6	98.1	122.0	140.2
Communication	43.8	75.5	112.1	136.3	168.0
Wholesale and retail trade	42.3	71.1	105.4	126.4	143.2
Public authority (n.e.i.) and community and business services	40.3	68.0	102.6	123.2	142.3
Amusement, hotels, personal service, etc.	40.8	68.1	100.4	119.4	136.4
<i>All industry groups(d)</i>	<i>42.7</i>	<i>71.5</i>	<i>105.2</i>	<i>125.7</i>	<i>144.1</i>

(a) As prescribed in awards, determinations and agreements. (b) The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends. (c) Includes the value of keep, where supplied. (d) Excludes rural.

Adult males—components of total wage rate. A dissection of weighted average minimum weekly wage rates for adult males into the three components of the total minimum wage, i.e. basic wage, margin and loading, is given in the following three tables, separate particulars being shown for employees covered by awards, etc., within Commonwealth and State jurisdictions. For the purposes of the index the Commonwealth jurisdiction embraces awards of, or agreements registered with, the Commonwealth Conciliation and Arbitration Commission and determinations of the Commonwealth Public Service Arbitrator. State jurisdictions embrace awards or determinations of, or agreements registered with, State industrial tribunals, together with certain unregistered agreements, where these are dominant in the particular industries to which they refer.

The *basic wage rates* shown herein are weighted averages of the rates prescribed in awards, etc., for the occupations included in the index for each State. For industries other than mining metropolitan basic wage rates have generally been used. However, there are a number of occupations for which basic wage rates other than the metropolitan rate are prescribed. Also, in some States at various times, State Government employees under Commonwealth awards have been paid State basic wage rates, and the basic wage rates of some employees have been subject to automatic quarterly adjustments while those of other employees within the same jurisdiction have remained unchanged. In all such cases the basic wage rate actually paid is used in the tables below. For these and other reasons the weighted average basic wage rates differ, in the majority of cases, from the metropolitan basic wage rates shown in other sections of this chapter.

Margins are minimum amounts, in addition to the basic wage, awarded to particular classifications of employees for features attaching to their work, such as skill, experience, arduousness and other like factors.

Loadings are minimum amounts, in addition to the basic wage and margin (if any), awarded for various kinds of disabilities associated with the performance of work, or to meet particular circumstances. They include payments such as industry loadings and other general loadings prescribed in awards, etc. for the occupations included in the index.

For a more detailed description of this dissection of weekly wage rates into components and for tables for each State and Australia, according to jurisdiction, extending back to 1939, see the mimeographed statement *Minimum Wage Rates, March, 1939 to June, 1964*.

WEEKLY WAGE RATES: ADULT MALES, COMPONENTS OF TOTAL WAGE RATE, STATES, 31 DECEMBER 1965^(a)

WEIGHTED AVERAGES OF MINIMUM WEEKLY RATES^(b) PAYABLE FOR A FULL WEEK'S WORK (EXCLUDING OVERTIME)

(£)

Jurisdiction and component of total wage(c)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Commonwealth awards, etc.—							
Basic wage . . .	31.36	30.73	29.94	30.35	30.83	31.21	30.92
Margin	9.04	8.53	10.28	9.19	11.85	8.20	8.94
Loading	0.58	0.59	0.59	0.31	0.34	0.77	0.55
<i>Total wage . . .</i>	<i>40.98</i>	<i>39.85</i>	<i>40.81</i>	<i>39.85</i>	<i>43.02</i>	<i>40.18</i>	<i>40.41</i>
State awards, etc.—							
Basic wage . . .	31.50	30.70	31.49	30.31	31.96	31.39	31.34
Margin	8.38	9.83	9.70	6.96	7.62	8.74	8.77
Loading	1.10	0.85	0.66	1.23	0.57	1.20	0.90
<i>Total wage . . .</i>	<i>40.98</i>	<i>41.38</i>	<i>41.85</i>	<i>38.50</i>	<i>40.15</i>	<i>41.33</i>	<i>41.01</i>
All awards, etc.—							
Basic wage . . .	31.42	30.72	31.18	30.34	31.83	31.28	31.12
Margin	8.73	8.93	9.82	8.51	8.11	8.41	8.86
Loading	0.83	0.67	0.64	0.59	0.54	0.95	0.72
<i>Total wage . . .</i>	<i>40.98</i>	<i>40.32</i>	<i>41.64</i>	<i>39.44</i>	<i>40.48</i>	<i>40.64</i>	<i>40.70</i>

(a) Excludes rural. The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends. (b) As prescribed in awards, determinations and agreements.

(c) For definitions, see text above.

WEEKLY WAGE RATES: ADULT MALES, COMPONENTS OF TOTAL WAGE RATE AUSTRALIA(a), DECEMBER 1939 TO 1965

WEIGHTED AVERAGES OF MINIMUM WEEKLY RATES(b) PAYABLE FOR A FULL WEEK'S WORK (EXCLUDING OVERTIME)

(\$)

Jurisdiction and components of total wage(c)	End of December—					
	1939	1945	1950	1955	1960	1965
Commonwealth awards, etc.—						
Basic wage	7.94	9.72	16.22	23.90	27.82	30.92
Margin	1.72	1.93	3.57	5.27	7.01	8.94
Loading	0.04	0.42	0.39	0.23	0.31	0.55
<i>Total wage</i>	9.70	12.07	20.18	29.40	35.14	40.41
State awards, etc.—						
Basic wage	8.19	9.81	16.17	24.47	28.52	31.34
Margin	1.73	2.00	3.52	5.05	6.84	8.77
Loading	0.06	0.24	0.54	0.50	0.52	0.90
<i>Total wage</i>	9.98	12.05	20.23	30.02	35.88	41.01
All awards, etc.—						
Basic wage	8.07	9.77	16.19	24.18	28.16	31.12
Margin	1.72	1.97	3.55	5.16	6.92	8.86
Loading	0.04	0.32	0.46	0.36	0.42	0.72
<i>Total wage</i>	9.83	12.06	20.20	29.70	35.50	40.70

For footnotes see page 350.

A table showing components of total wage rates in industry groups for Australia at the end of December each year 1945 to 1964 was published in the Appendix to *Labour Report*, No. 51, 1964.

The table below shows similar details for 31 December 1964 and 1965.

WEEKLY WAGE RATES: ADULT MALES, COMPONENTS OF TOTAL WAGE RATE INDUSTRY GROUPS, AUSTRALIA, DECEMBER 1964 AND 1965(a)

WEIGHTED AVERAGE MINIMUM WEEKLY RATES(b) PAYABLE FOR A FULL WEEK'S WORK (EXCLUDING OVERTIME)

(\$)

Industry group	31 December 1964				31 December 1965			
	Basic wage	Margin	Loading	Total wage	Basic wage	Margin	Loading	Total wage
Mining and quarrying(c)	31.27	8.91	7.30	47.48	31.48	9.66	7.39	48.53
Manufacturing—								
Engineering, metals, vehicles, etc.	30.98	7.63	0.27	38.88	31.07	8.32	0.26	39.65
Textiles, clothing and footwear	30.89	6.89	0.11	37.89	30.92	7.58	0.11	38.61
Food, drink and tobacco	30.98	7.87	0.32	39.17	31.15	8.99	0.33	40.47
Sawmilling, furniture, etc.	31.00	7.16	0.07	38.23	31.25	8.22	0.07	39.54
Paper, printing, etc.	31.11	10.90	0.18	42.19	31.06	11.84	0.11	43.01
Other manufacturing	31.03	7.28	0.47	38.78	31.13	8.08	0.45	39.66
<i>All manufacturing groups</i>	30.99	7.70	0.28	38.97	31.09	8.51	0.27	39.87
Building and construction	31.00	7.56	1.58	40.14	31.20	8.44	1.72	41.36
Railway services	30.94	7.21	0.31	38.46	31.21	8.30	0.40	39.91
Road and air transport	31.00	8.03	0.02	39.05	31.15	9.51	0.02	40.68
Shipping and stevedoring(d)	30.83	7.98	0.04	38.85	30.87	8.67	0.05	39.59
Communication	30.79	13.32	0.58	44.69	30.78	16.05	0.63	47.46
Wholesale and retail trade	30.98	8.18	0.38	39.54	31.16	8.88	0.39	40.43
Public authority (n.e.i.) and community and business services	30.95	7.59	0.30	38.84	31.14	8.74	0.31	40.19
Amusement, hotels, personal services, etc.	30.96	6.52	0.04	37.52	31.06	7.42	0.05	38.53
<i>All industry groups</i>	30.99	7.94	0.69	39.62	31.12	8.86	0.72	40.70

(a) Excludes rural. The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends. For definitions of basic wage, margin and loading see text, page 350.

(b) As prescribed in awards, determinations and agreements.

(c) For mining, the average rates of wage are those prevailing at the principal mining centres in each State. They include lead bonuses, etc.

(d) Average rates of wage are for occupations other than masters, officers and engineers in the Merchant Marine Service, and include the value of keep, where supplied.

Weekly wage rates—adult females

The following table shows, for each State and Australia, the weighted average minimum weekly rates of wage payable to adult female workers for a full week's work, and index numbers at the dates specified. This series has not been compiled for years prior to 1951.

WEEKLY WAGE RATES: ADULT FEMALES, STATES, DECEMBER 1951 TO 1965

WEIGHTED AVERAGE MINIMUM WEEKLY RATES(a) PAYABLE FOR A FULL WEEK'S WORK (EXCLUDING OVERTIME) AND INDEX NUMBERS OF WAGE RATES

End of—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
RATES OF WAGE(b) (\$)							
December, 1951 . .	17.23	17.22	16.12	17.02	16.25	16.55	17.03
" 1953 . .	20.05	20.13	18.82	19.91	19.02	19.72	19.88
" 1955 . .	20.97	21.04	19.42	20.18	19.78	20.00	20.69
" 1960 . .	26.12	24.66	23.93	24.29	25.12	23.88	25.17
" 1965 . .	29.81	28.45	29.15	27.73	28.69	27.95	29.04

INDEX NUMBERS

(Base: Weighted Average Weekly Wage Rate for Australia 1954 = 100)

December, 1951 . .	86.6	86.5	81.0	85.5	81.6	83.2	85.6
" 1953 . .	100.7	101.1	94.5	100.0	95.5	99.0	99.8
" 1955 . .	105.3	105.7	97.6	101.3	99.3	100.5	103.9
" 1960 . .	131.2	123.9	120.2	122.0	126.2	120.0	126.4
" 1965 . .	149.7	142.9	146.4	139.3	144.1	140.4	145.9

(a) As prescribed in awards, determinations and agreements. (b) The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends.

The following table shows for Australia weighted average minimum weekly rates of wage and index numbers in each of the industry groups in which the number of females employed is important, and the weighted average for all groups combined, at the dates specified.

WEEKLY WAGE RATES: ADULT FEMALES, INDUSTRY GROUPS, AUSTRALIA DECEMBER 1951 TO 1965

WEIGHTED AVERAGE MINIMUM WEEKLY RATES(a) PAYABLE FOR A FULL WEEK'S WORK (EXCLUDING OVERTIME) AND INDEX NUMBERS OF WAGE RATES

Industry group	End of December—				
	1951	1953	1955	1960	1965

RATES OF WAGE(b) (\$)

Manufacturing—					
Engineering, metals, vehicles, etc. . .	17.09	20.06	20.65	24.98	28.55
Textiles, clothing and footwear . .	17.12	19.88	20.09	24.07	27.25
Food, drink and tobacco . . .	16.58	19.45	20.68	24.63	28.28
Other manufacturing . . .	16.88	19.76	20.36	24.80	28.43
<i>All manufacturing groups . . .</i>	<i>16.99</i>	<i>19.82</i>	<i>20.33</i>	<i>24.46</i>	<i>27.87</i>
Transport and communication . . .	17.75	20.64	21.38	26.02	31.42
Wholesale and retail trade . . .	17.11	19.96	21.30	26.36	30.46
Public authority (n.e.i.) and community and business services . . .	17.01	19.91	20.97	25.78	30.41
Amusement, hotels, personal service, etc. .	16.68	19.48	20.17	24.50	28.22
All industry groups . . .	17.03	19.88	20.69	25.17	29.04

For footnotes see next page.

WEEKLY WAGE RATES: ADULT FEMALES, INDUSTRY GROUPS, AUSTRALIA
DECEMBER 1951 TO 1965—continued

Industry group	End of December—				
	1951	1953	1955	1960	1965

INDEX NUMBERS

(Base: Weighted Average Weekly Wage Rate for Australia, 1954 = 100)

Manufacturing—					
Engineering, metals, vehicles, etc.	85.9	100.8	103.7	125.5	143.4
Textiles, clothing and footwear	86.0	99.8	100.9	120.9	136.9
Food, drink and tobacco	83.3	97.7	103.9	123.7	142.0
Other manufacturing	84.8	99.2	102.3	124.6	142.8
All manufacturing groups	85.4	99.6	102.1	122.9	140.0
Transport and communication	89.2	103.7	107.4	130.7	157.8
Wholesale and retail trade	85.9	100.3	107.0	132.4	153.0
Public authority (n.e.i.) and community and business services	85.4	100.0	105.3	129.5	152.8
Amusement, hotels, personal service, etc.	83.8	97.9	101.3	123.1	141.8
All industry groups	85.6	99.8	103.9	126.4	145.9

(a) As prescribed in awards, determinations and agreements. (b) The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends.

Standard hours of work

In the fixation of weekly wage rates most industrial tribunals prescribe the number of hours constituting a full week's work for the wage rates specified. The hours of work so prescribed form the basis of the compilation of the weighted averages and index numbers on page 355. The main features of the reduction of hours to forty-four and later to forty per week are summarized on pages 353-4. In considering such changes, it must be remembered that even within individual States the authority to alter conditions of work is divided between Commonwealth and State industrial tribunals and the various legislatures, and that the State legislation usually does not apply to employees covered by awards of the Commonwealth Conciliation and Arbitration Commission. However, it may do so in respect of matters not treated in Commonwealth awards.

The 44-hour week

No permanent reduction to a 44-hour week was effected until 1925, although temporary reductions had been achieved earlier. In 1920 the New South Wales legislature granted a 44-hour week to most industries, but in the following year this provision was withdrawn. Also in 1920 the President of the Commonwealth Court of Conciliation and Arbitration (Higgins J.), after inquiry, granted a 44-hour week to the Timber Workers' Union, and in the following year he extended the same privilege to the Amalgamated Society of Engineers. In 1921, however, a reconstituted Commonwealth Court of Conciliation and Arbitration unanimously rejected applications by five trade unions for the shorter standard week and re-introduced the 48-hour week in the case of the above-mentioned two unions then working forty-four hours. During 1924 the Queensland Parliament passed legislation to operate from 1 July 1925 granting the 44-hour standard week to employees whose conditions of work were regulated by awards and agreements of the Queensland State industrial authority. Similar legislative action in New South Wales led to the re-introduction of the 44-hour week in that State as from 4 January 1926.

In 1927, after an exhaustive inquiry, the Commonwealth Court of Conciliation and Arbitration granted a 44-hour week to the Amalgamated Engineering Union and intimated that this reduction in standard hours of work would be extended to industries operating under conditions similar to those in the engineering industry. Applications for the shorter hours by other unions were, however, treated individually, the nature of the industry, the problem of production, the financial status and the amount of foreign competition being fully investigated. The economic depression delayed the extension of the standard 44-hour week until the subsequent improvement in economic conditions made possible its general extension to employees under Commonwealth awards.

In States other than New South Wales and Queensland no legislation was passed to reduce the standard hours of work, so that, for employees not covered by Commonwealth awards, the change had to be effected by decisions of the appropriate industrial tribunals. In these cases the date on which the reduction to forty-four hours was implemented depended on the decision of the tribunals in particular industries, employees in some industries receiving the benefit of the reduced hours years ahead of those in others. In these States the change to the shorter week extended over the years from 1926 to 1941.

The 40-hour week

Standard Hours Inquiry, 1947. Soon after the end of the 1939-45 War applications were made to the Commonwealth Court of Conciliation and Arbitration for the introduction of a 40-hour week, and the hearing by the Court commenced in October 1945. Before the Court gave its decision the New South Wales Parliament passed legislation granting a 40-hour week, operative from 1 July 1947, to industries and trades regulated by State awards and agreements, and in Queensland similar legislation was introduced in Parliament providing for the 40-hour week to operate from 1 January 1948.

The Commonwealth Court of Conciliation and Arbitration, in its judgment of 8 September 1947, granted the reduction to the 40-hour week from the beginning of the first pay-period commencing in January 1948. The Queensland Act was passed, and was proclaimed on 10 October 1947. On 27 October 1947, the South Australian Industrial Court, after hearing applications by unions, approved the incorporation of the 40-hour standard week in awards of that State. The Court of Arbitration of Western Australia, on 6 November 1947, approved that on application provision for a 40-hour week could be incorporated in awards of the Court, commencing from 1 January 1948.

In Victoria and Tasmania the Wages Boards met and also incorporated the shorter working week in their determinations, so that from the beginning of 1948 practically all employees in Australia whose conditions of labour were regulated by industrial authorities had the advantages of a standard working week of forty hours or, in certain cases, less.

Basic Wage and Standard Hours Inquiry, 1952-53. In the 1952-53 Basic Wage and Standard Hours Inquiry the employers sought an increase in the standard hours of work per week, claiming that one of the chief causes of the high costs and inflation had been the loss of production due to the introduction of the 40-hour week. This claim was rejected by the Court, as it considered that the employers had not proved that the existing economic situation called for a reduction of general standards in the matter of the ordinary working week. (*See also* page 365.)

Basic Wage and Standard Hours Inquiry, 1961. The Commonwealth Conciliation and Arbitration Commission rejected an employers' claim for an increase in the number of ordinary working hours from 40 to 42 per week, with a concomitant increase in weekly wages by an amount equal to two hours' pay at ordinary rates. This was to be a temporary measure to have effect for four years, after which time hours would revert to 40 and the increased wage would remain. (*See also* page 366.)

Hourly wage rates

The average rates of wage in the preceding tables are based on the minimum rates prescribed for selected occupations in awards, etc., for a full week's work, excluding overtime. However, the number of hours constituting a full week's work differs in some instances between various occupations in each State, and between the same occupations in the several States. For some purposes a better comparison may be obtained by reducing the results in the preceding paragraphs to a common basis, namely the rate of wage per hour. The particulars of weighted average minimum hourly rates of wage given in the following tables relate to all industry groups except Rural, and Shipping and stevedoring. The Rural industry is not included in the index and Shipping and stevedoring has been excluded because, for some of the occupations in this group, definite particulars for the computation of average working hours and hourly rates of wage are not available.

The following table shows the weighted average minimum hourly rates of wage payable to adult male workers, and index numbers of hourly rates in each State.

HOURLY WAGE RATES(a): ADULT MALES
STATES, DECEMBER 1945 TO 1965

WEIGHTED AVERAGE MINIMUM HOURLY RATES PAYABLE AND INDEX NUMBERS OF HOURLY RATES

End of—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
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RATES OF WAGE(b)

(Cents)

December, 1945 . . .	28.03	27.54	27.19	26.43	27.36	26.42	27.54
" 1950 . . .	51.63	50.48	48.83	49.53	50.29	49.52	50.58
" 1955 . . .	76.57	74.06	71.02	71.40	75.42	73.71	74.47
" 1960 . . .	90.91	87.57	87.79	85.61	89.89	88.08	88.92
" 1965 . . .	102.65	100.92	104.31	98.69	101.57	101.87	101.93

INDEX NUMBERS

(Base: Weighted Average Hourly Wage Rate for Australia, 1954 = 100)

December, 1945 . . .	39.6	38.9	38.4	37.4	38.7	37.3	38.9
" 1950 . . .	73.0	71.4	69.0	70.0	71.1	70.0	71.5
" 1955 . . .	108.2	104.7	100.4	100.9	106.6	104.2	105.3
" 1960 . . .	128.5	123.8	124.1	121.0	127.1	124.5	125.7
" 1965 . . .	145.1	142.6	147.4	139.5	143.6	144.0	144.1

(a) Weighted average hourly rates of wage for all industry groups except rural, and shipping and stevedoring. See page 354. (b) The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends.

The following table shows the weighted average minimum hourly rates of wage payable to adult female workers, and index numbers of hourly rates in each State.

HOURLY WAGE RATES: ADULT FEMALES
STATES, DECEMBER 1951 TO 1965

WEIGHTED AVERAGE MINIMUM HOURLY RATES PAYABLE AND INDEX NUMBERS OF HOURLY RATES

End of—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
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RATES OF WAGE(a)

(Cents)

December, 1951 . . .	43.58	43.25	40.60	42.81	40.85	41.86	42.92
" 1953 . . .	50.72	50.57	47.40	50.06	47.81	49.84	50.10
" 1955 . . .	53.04	52.86	48.93	50.73	49.71	50.56	52.16
" 1960 . . .	66.09	61.94	60.28	61.08	63.14	60.37	63.44
" 1965 . . .	75.42	71.46	73.43	69.74	72.11	70.52	73.20

INDEX NUMBERS

(Base: Weighted Average Hourly Wage Rate for Australia, 1954 = 100)

December, 1951 . . .	86.9	86.2	80.9	85.3	81.4	83.4	85.6
" 1953 . . .	101.1	100.8	94.5	99.8	95.3	99.3	99.9
" 1955 . . .	105.7	105.3	97.5	101.1	99.1	100.8	104.0
" 1960 . . .	131.7	123.5	120.1	121.7	125.8	120.3	126.4
" 1965 . . .	150.3	142.4	146.3	139.0	143.7	140.5	145.9

(a) The amounts shown should not be regarded as actual current averages, but as an index expressed in money terms, indicative of trends.

Weighted average standard weekly hours of work

The 40-hour week has operated in Australia generally from 1 January 1948, and in New South Wales from 1 July 1947 (see page 354.) However, as stated on page 354, the number of hours constituting a full week's work (excluding overtime) differs between occupations and/or between States. The weighted average standard hours of work (excluding overtime) prescribed in awards, determinations and agreements for a full working week, in respect of adult male workers in all industry groups, except Rural, and Shipping and stevedoring, at 31 December 1965, were: New South Wales, 39.95; Victoria, 39.97; Queensland, 39.98; South Australia, 39.96; Western Australia, 39.89; Tasmania, 39.97; Australia, 39.96. Corresponding figures for adult female workers at 31 December 1965 were: New South Wales, 39.53; Victoria, 39.81; Queensland, 39.70; South Australia, 39.77; Western Australia, 39.78; Tasmania, 39.56; Australia, 39.67.

Average weekly earnings

The figures in this section are derived from particulars of employment and of wages and salaries recorded on pay-roll tax returns, from other direct collections, and from estimates of the unrecorded balance. The figures relate to civilians only.

Particulars of wages and salaries paid are not available for males and females separately from these sources; average weekly earnings have therefore been calculated in terms of male units. Male units represent total male employment plus a proportion of female employment based on the approximate ratio of female to male earnings. As it was not possible to estimate the ratio of male to female earnings in the several States the same ratio has been used in each State. Because the actual ratio may vary between States, precise comparisons between average earnings in different States cannot be made on the basis of the figures shown in the following table. Quarterly figures corresponding to those shown in the table are published in the monthly bulletin *Wage Rates and Earnings* and in the *Monthly Review of Business Statistics*.

Particulars of average weekly earnings per employed male unit are shown in the following table for each of the years 1955-56 to 1964-65.

**AVERAGE WEEKLY EARNINGS PER EMPLOYED MALE UNIT(a): STATES
1955-56 TO 1964-65
(\$)**

Year	N.S.W. (b)	Vic.	Qld	S.A. (c)	W.A.	Tas.	Aust.
1955-56 . .	37.90	37.80	33.00	35.90	33.90	35.60	36.70
1956-57 . .	39.90	39.60	34.80	36.70	35.00	37.70	38.40
1957-58 . .	41.00	40.70	35.70	37.70	36.20	38.30	39.50
1958-59 . .	42.30	42.00	37.20	38.60	36.60	39.20	40.70
1959-60 . .	45.70	45.50	39.40	41.80	39.20	41.90	43.90
1960-61 . .	48.10	47.20	41.60	43.40	41.60	43.30	46.00
1961-62 . .	49.10	48.50	43.20	44.70	43.00	45.30	47.20
1962-63 . .	50.20	50.10	44.40	45.80	44.20	45.90	48.40
1963-64 . .	52.60	52.50	46.70	48.10	47.20	48.60	50.90
1964-65 . .	56.60	56.30	50.40	51.70	49.30	50.80	54.60

(a) Includes, in addition to wages at award rates, earnings of salaried employees, overtime earnings, over-award and bonus payments, payments made in advance or retrospectively during the periods specified, etc. See explanatory notes above. (b) Includes Australian Capital Territory. (c) Includes Northern Territory.

The following table shows, for 'All industries' and for 'Manufacturing', the movement in average weekly earnings from 1955-56 to the March quarter 1966. The 'All industries' index is based on pay-roll tax returns and other data. It relates to average weekly earnings per employed male unit. The index for manufacturing industries for the years to 1964-65 is based on the average earnings of male wage and salary earners employed in factories as disclosed by annual factory censuses (see the chapter Manufacturing Industry, page 110); figures for quarters subsequent to June quarter 1965 are preliminary estimates based on pay-roll tax returns.

The index numbers for 'All industries' and 'Manufacturing' show the movement in average earnings for each group over a period of time. However, they do not give, at any point of time, a comparison of actual earnings in the two groups. The base of each series is the year 1953-54 = 100, and both series have been seasonally adjusted.

INDEXES OF AVERAGE WEEKLY EARNINGS(a): AUSTRALIA, YEARS 1955-56 TO 1964-65 AND QUARTERS SEPTEMBER 1963 TO MARCH 1966

SEASONALLY ADJUSTED

(Base of each Index: Year 1953-54 = 100)

Year	All industries (b)	Manufacturing	Quarter	All industries (b)	Manufacturing
1953-54 . .	100.0	100.0	1963-64—September . .	150.9	151.4
1955-56 . .	112.3	113.8	December . .	155.4	152.8
1956-57 . .	117.7	118.3	March . .	157.8	156.9
1957-58 . .	120.8	122.0	June . .	158.7	158.2
1958-59 . .	124.5	125.6			
			1964-65—September . .	163.3	165.3
1959-60 . .	134.3	135.4	December . .	165.1	164.2
1960-61 . .	140.6	141.1	March . .	169.4	168.4
1961-62 . .	144.7	143.4	June . .	170.4	170.4
1962-63 . .	148.3	147.7			
1963-64 . .	155.7	154.8	1965-66—September . .	172.1	172.0
			December . .	173.3	172.5
1964-65 . .	167.1	167.1	March . .	175.6	173.3

(a) See footnote (a) to table on page 356.

(b) Average earnings per employed male unit.

Surveys of wage rates, earnings and hours

Since 1960 a number of statistical surveys of wages and hours of work in Australia have been undertaken by this Bureau. The object of these surveys has been to obtain information on wage rates, actual weekly earnings and hours of work on a more comprehensive scale than previously available in Australia. A summary of the scope and coverage of each of these surveys is shown below.

Survey of Wage Rates and Earnings, September 1960

This survey, relating to the last pay-period in September 1960, obtained information about marginal rates of wage and the dissection and distribution of actual weekly earnings of adult male employees (excluding part-time and casual employees). In addition to the exclusion of government and semi-government employees, and private employees in rural industry and in private domestic service, the survey did not cover the following—shipping and stevedoring industries; the motion picture industry; certain businesses such as those of accountants, consultant engineers, etc.; and trade associations, etc. The survey was based on a stratified random sample of private employers in other industries who were subject to pay-roll tax (that is, employers paying more than \$400 per week in wages and salaries). For information on the results of the survey see Year Book No. 51, pages 439 to 442.

Survey of Weekly Earnings, October 1961

This survey was conducted for the last pay-period in October 1961 and provided information about the distribution of actual weekly earnings for adult male employees (excluding part-time and casual employees). The survey did not cover government or semi-government employees, private employees in rural industry and in private domestic service, or employees not liable to pay-roll tax. The survey was based on a stratified random sample of private employers in other industries who were subject to pay-roll tax (that is, employers paying more than \$400 a week in wages and salaries). The results of the survey were published in Year Book No. 51, pages 442 to 444.

Surveys of Weekly Earnings and Hours, October 1962, October 1963, and October 1964

Sample surveys of earnings and hours in respect of most private employers subject to pay-roll tax (i.e. those paying more than \$400 a week in wages and salaries) have been conducted as at the last pay-period in October for the years 1962, 1963 and 1964. Results of the 1963 and 1964 surveys, with some comparisons with the 1962 survey, are shown in the following tables.

Figures for average weekly earnings, average weekly hours paid for, and average hourly earnings as at the selected pay-periods are shown for males and females (adult and junior) separately by industry groups and by States. They reflect the effects of differences (and of changes between the points of time) in amounts paid for the various occupations; in amounts paid for the same occupations; in occupational structures within industries; in industry structure; in degrees of business activity (incidence of overtime, etc.); and in incidence of incentive schemes, piece-work and profit-sharing scheme payments, etc.

Coverage of surveys

The results of the surveys were based on returns from stratified random samples of private employers subject to pay-roll tax. Employees in rural industry and in private domestic service were excluded because most employers in these two industries are not subject to pay-roll tax. Also excluded from the surveys were employees of government and semi-government authorities as well as those of religious, benevolent and other similar organizations exempt from pay-roll tax. The earnings and hours of waterside workers employed on a casual basis have been excluded because they are subject to wide fluctuations for short periods such as those covered by these surveys. Approximately 3,550 employers were included in the October 1964 survey and the sample represented 1,359,000 male and 568,200 female wage and salary earners.

The figures contained in the tables in this section are for 'Employees (other than part-time) whose hours of work were known' as defined below. Because of the heterogeneity of the data combined with high sampling variability, figures relating to other employees (part-time workers, executives, etc., and those whose hours of work were not known) are not available for publication.

Comparability of results of surveys

Since the survey estimates are based on a sample they are subject to sampling variability, that is, variations which might occur by chance because only samples of employers were surveyed. In addition to affecting the results of each sample such aspects also affect comparison between each year's results.

A detailed comparison of the results of the October 1962 survey with the other two surveys is not presented mainly because there was a change in industry classification after the 1962 survey. A broad comparison by States is shown on page 363.

Definitions of terms used in surveys

The following definitions refer to terms used in the surveys and in the tables in this section.

Employees refer to male and female employees on the pay-roll for the last pay-period in October.

Employees whose hours of work were known exclude (i) all managerial, executive, professional and higher supervisory staff, whether or not their hours of work were known, and (ii) any other employees whose hours of work were not known. They comprise all other employees who received pay for the last pay-period in October and whose hours of work were known (including foremen, transport supervisors, floor-walkers, other minor supervisory employees, clerical and office staff, etc.).

Part-time employees refer to employees who ordinarily worked less than thirty hours a week. Employees on short-time who normally worked thirty hours or more a week were classified as 'other than part-time.'

Adults include employees who, although under twenty-one years of age, were paid at the adult rate for their occupation.

Juniors are those employees under twenty-one years of age who were not paid at the adult rate for their occupation.

Earnings (i.e. gross earnings, before taxation and other deductions) include ordinary time and overtime earnings, payments for sick leave and holidays, commission, and all other payments such as incentive scheme, piecework and profit-sharing scheme payments, etc., and bonus payments of any kind. Annual or other periodical bonuses have been included only at the appropriate proportion for one week. For employees paid other than weekly, only the proportion of earnings equivalent to one week has been included.

Weekly hours paid for include ordinary time and overtime hours, paid stand-by or reporting time, paid sick leave and paid holidays. For employees paid other than weekly, hours have been converted to the equivalent for one week.

Average earnings and hours

In the following tables the average weekly earnings, average weekly hours paid for and average hourly earnings at the last pay-periods in October 1963 and October 1964 are shown for males and females (adult and junior), other than part-time, by industry group.

**AVERAGE EARNINGS AND HOURS FOR EMPLOYEES (OTHER THAN PART TIME)
WHOSE HOURS OF WORK WERE KNOWN(a): INDUSTRY GROUPS, AUSTRALIA(b)
OCTOBER 1963(c)**

Industry group	Average weekly earnings (\$)				Average weekly hours paid for				Average hourly earnings (\$)			
	Adult males	Junior males	Adult females	Junior females	Adult males	Junior males	Adult females	Junior females	Adult males	Junior males	Adult females	Junior females
Manufacturing—												
Chemicals, dyes, explosives, paints, non-mineral oils	51.79	25.90	31.49	21.19	41.76	40.40	39.59	38.82	1.24	0.64	0.80	0.55
Extracting, refining and founding of metals	53.20	27.43	29.99	22.97	43.43	41.84	40.46	40.67	1.22	0.66	0.74	0.56
Engineering and metalworking	51.38	22.72	29.73	19.69	42.78	41.15	39.73	39.52	1.20	0.55	0.75	0.50
Ships, vehicles, parts and accessories	52.43	23.24	30.05	21.62	43.54	41.52	39.70	39.63	1.20	0.56	0.76	0.53
Founding, engineering, vehicles, etc.	51.97	23.55	29.80	20.31	43.08	41.33	39.77	39.64	1.21	0.57	0.75	0.51
Textiles, clothing and footwear	47.64	23.02	29.00	17.36	41.86	40.71	39.35	39.10	1.14	0.57	0.74	0.44
Food, drink and tobacco	48.44	25.18	29.90	19.46	42.68	41.34	39.46	38.95	1.13	0.61	0.76	0.50
Paper, printing, bookbinding and photography	56.99	25.37	31.55	18.68	41.78	40.95	39.57	39.68	1.36	0.62	0.80	0.47
Other	49.28	22.08	29.44	18.41	43.12	40.52	39.56	39.31	1.14	0.54	0.74	0.47
All manufacturing groups	51.01	23.64	29.64	18.61	42.79	41.06	39.52	39.25	1.19	0.58	0.75	0.47
Mining and quarrying	60.59	28.13	35.27	23.19	41.61	41.03	39.26	39.34	1.46	0.69	0.90	0.59
Building and construction	55.69	25.48	33.61	20.20	43.04	40.37	39.37	38.64	1.29	0.63	0.85	0.52
Transport and storage	55.26	23.72	33.57	21.93	44.64	40.51	39.07	39.16	1.24	0.59	0.86	0.56
Finance and property	52.58	24.51	33.36	21.98	38.85	38.36	37.58	37.78	1.35	0.64	0.89	0.58
Retail trade	46.64	22.08	30.64	18.17	41.20	41.04	39.54	39.69	1.13	0.54	0.78	0.46
Wholesale trade, primary produce dealing, etc.	48.72	22.62	32.16	20.32	40.88	39.77	38.76	38.66	1.19	0.57	0.83	0.53
Other industries	49.96	24.78	31.58	20.68	41.22	38.89	39.04	38.27	1.21	0.64	0.81	0.54
All industry groups	51.23	23.48	30.54	19.37	42.30	40.55	39.29	39.02	1.21	0.58	0.78	0.50

(a) Private employees only. Excludes managerial, executive, professional and higher supervisory staff, whether or not their hours of work were known, and all other employees whose hours of work were not known. (b) Excludes Northern Territory and Australian Capital Territory. (c) Last pay-period in October. For definitions and particulars of coverage of the survey, etc., see page 358.

**AVERAGE EARNINGS AND HOURS FOR EMPLOYEES (OTHER THAN PART-TIME) WHOSE
HOURS OF WORK WERE KNOWN^(a): INDUSTRY GROUPS, AUSTRALIA^(b)
OCTOBER 1964^(c)**

Industry group	Average weekly earnings (\$)				Average weekly hours paid for				Average hourly earnings (\$)			
	Adult males	Junior males	Adult fe- males	Junior fe- males	Adult males	Junior males	Adult fe- males	Junior fe- males	Adult males	Junior males	Adult fe- males	Junior fe- males
Manufacturing—												
Chemicals, dyes, explosives, paints, non-mineral oils . . .	55.59	28.73	33.36	23.04	42.91	41.18	39.51	38.76	1.30	0.70	0.84	0.59
Extracting, refining and foundling of metals . .	58.69	31.11	32.18	25.05	44.17	41.18	40.02	39.71	1.33	0.76	0.80	0.63
Engineering and metal- working . . .	55.49	26.46	31.51	21.38	44.26	42.32	39.71	39.62	1.25	0.63	0.79	0.54
Ships, vehicles, parts and accessories . . .	55.74	25.50	31.80	23.56	42.92	40.78	39.38	39.34	1.30	0.63	0.81	0.60
Founding, engineering, vehicles, etc. . .	56.13	27.04	31.60	22.14	43.91	41.80	39.67	39.57	1.28	0.65	0.80	0.56
Textiles, clothing and footwear . . .	51.63	25.65	31.25	19.28	42.71	41.05	39.65	39.62	1.21	0.62	0.79	0.49
Food, drink and tobacco Paper, printing, bookbinding and photography . . .	52.03	26.13	32.28	20.49	43.15	41.10	39.43	39.53	1.21	0.64	0.82	0.52
Other.	60.71	26.89	33.49	19.97	42.24	41.11	39.93	39.87	1.44	0.65	0.84	0.50
	53.25	24.60	30.78	19.63	43.23	40.41	39.91	39.34	1.23	0.59	0.77	0.50
<i>All manufacturing groups</i>	<i>55.04</i>	<i>26.41</i>	<i>31.66</i>	<i>20.28</i>	<i>43.44</i>	<i>41.51</i>	<i>39.67</i>	<i>39.54</i>	<i>1.27</i>	<i>0.64</i>	<i>0.80</i>	<i>0.51</i>
Mining and quarrying .	65.46	31.90	35.87	25.55	42.72	41.20	38.91	39.15	1.53	0.77	0.92	0.63
Building and construction . . .	59.91	26.81	34.55	22.13	43.74	40.83	38.54	37.99	1.37	0.66	0.90	0.58
Transport and storage .	59.61	26.66	35.16	23.14	45.21	40.74	39.53	39.27	1.32	0.65	0.89	0.59
Finance and property .	57.42	27.37	35.75	23.61	38.92	38.60	37.53	37.98	1.48	0.71	0.95	0.62
Retail trade	49.67	24.02	32.95	19.48	41.22	40.70	39.77	39.99	1.21	0.59	0.83	0.49
Wholesale trade, primary produce dealing, etc. . . .	52.47	24.38	34.04	21.68	41.23	40.10	38.75	39.15	1.27	0.61	0.88	0.55
Other industries . . .	53.29	27.22	33.39	22.07	41.21	39.35	38.95	38.48	1.29	0.69	0.86	0.57
All industry groups .	55.18	25.91	32.55	20.91	42.84	40.79	39.40	39.30	1.29	0.64	0.83	0.53

For footnotes see table on page 359.

In the following tables, the average weekly earnings, average weekly hours paid for and average hourly earnings at the last pay-period in October 1963 and October 1964 are shown for males and females (adult and junior), other than part-time, by industry groups by State.

**AVERAGE EARNINGS AND HOURS FOR EMPLOYEES (OTHER THAN PART-TIME)
WHOSE HOURS OF WORK WERE KNOWN(a): INDUSTRY GROUPS,
STATES, OCTOBER 1963(b)**

State	Average weekly earnings (\$)					Average weekly hours paid for					Average hourly earnings (\$)				
	Manufacturing			Non-manufacturing	All industry groups	Manufacturing			Non-manufacturing	All industry groups	Manufacturing			Non-manufacturing	All industry groups
	Founding, engineering, vehicles, etc.	Other	Total			Founding, engineering, vehicles, etc.	Other	Total			Founding, engineering, vehicles, etc.	Other	Total		
ADULT MALES															
New South Wales	52.52	51.83	52.20	53.51	52.73	42.44	42.27	42.36	41.71	42.10	1.24	1.23	1.23	1.28	1.25
Victoria	52.66	51.05	51.75	51.56	51.68	44.11	43.05	43.51	41.52	42.76	1.19	1.19	1.19	1.24	1.21
Queensland	47.87	46.96	47.24	49.72	48.54	43.44	42.91	43.08	41.32	42.15	1.10	1.09	1.10	1.20	1.15
South Australia	51.16	47.14	49.71	48.58	49.26	43.51	42.34	43.09	42.11	42.69	1.18	1.11	1.15	1.15	1.15
Western Australia	45.30	44.13	44.53	49.03	47.15	41.41	41.10	41.20	41.61	41.44	1.09	1.07	1.08	1.18	1.14
Tasmania	54.66	46.63	49.52	48.20	48.94	41.96	41.29	41.53	41.24	41.41	1.30	1.13	1.19	1.17	1.18
Australia(c)	51.97	50.12	51.01	51.54	51.23	43.08	42.53	42.79	41.62	42.30	1.21	1.18	1.19	1.24	1.21
JUNIOR MALES															
New South Wales	24.85	24.82	24.84	24.22	24.55	40.97	40.62	40.81	39.92	40.40	0.61	0.61	0.61	0.61	0.61
Victoria	23.47	24.30	23.95	23.38	23.67	41.84	41.06	41.39	39.68	40.56	0.56	0.59	0.58	0.59	0.58
Queensland	20.86	23.15	22.19	22.85	22.52	42.22	41.13	41.59	39.82	40.69	0.49	0.56	0.53	0.57	0.55
South Australia	22.38	21.15	21.83	23.08	22.50	41.88	41.65	41.78	40.66	41.18	0.53	0.51	0.52	0.57	0.55
Western Australia	20.07	20.15	20.12	21.14	20.71	39.80	39.67	39.72	40.92	40.42	0.50	0.51	0.51	0.52	0.51
Tasmania	23.42	23.24	23.30	22.23	22.66	40.91	40.06	40.34	40.09	40.19	0.57	0.58	0.58	0.55	0.56
Australia(c)	23.55	23.72	23.64	23.33	23.48	41.33	40.80	41.06	40.03	40.55	0.57	0.58	0.58	0.58	0.58
ADULT FEMALES															
New South Wales	*	*	30.44	32.99	31.53	*	*	39.33	38.58	39.01	*	*	0.77	0.86	0.81
Victoria	*	*	29.35	31.91	30.25	*	*	39.66	38.93	39.40	*	*	0.74	0.82	0.77
Queensland	*	*	27.99	29.86	29.27	*	*	39.67	39.45	39.52	*	*	0.71	0.76	0.74
South Australia	*	*	27.79	29.03	28.49	*	*	40.11	39.90	39.99	*	*	0.69	0.73	0.71
Western Australia	*	*	27.55	30.26	29.55	*	*	39.03	39.74	39.55	*	*	0.71	0.76	0.75
Tasmania	*	*	29.08	29.05	29.07	*	*	39.12	39.25	39.19	*	*	0.74	0.74	0.74
Australia(c)	29.80	29.59	29.64	31.68	30.54	39.77	39.44	39.52	38.99	39.29	0.75	0.75	0.75	0.81	0.78
JUNIOR FEMALES															
New South Wales	*	*	19.58	21.21	20.59	*	*	39.19	38.69	38.88	*	*	0.50	0.55	0.53
Victoria	*	*	18.89	20.04	19.55	*	*	39.06	38.52	38.75	*	*	0.48	0.52	0.50
Queensland	*	*	16.46	18.49	17.86	*	*	39.50	39.14	39.25	*	*	0.42	0.47	0.46
South Australia	*	*	16.81	18.84	18.16	*	*	39.53	39.21	39.32	*	*	0.43	0.48	0.46
Western Australia	*	*	16.42	17.42	17.17	*	*	40.04	39.84	39.89	*	*	0.41	0.44	0.43
Tasmania	*	*	19.56	17.81	18.37	*	*	38.62	39.33	39.10	*	*	0.51	0.45	0.47
Australia(c)	20.31	18.26	18.61	19.82	19.37	39.64	39.17	39.25	38.89	39.02	0.51	0.47	0.47	0.51	0.50

(a) Private employees only. Excludes managerial, executive, professional and higher supervisory staff, whether or not their hours of work were known, and all other employees whose hours of work were not known. (b) Last pay-period in October. For definitions and particulars of coverage of the survey, etc., see page 358. (c) Excludes Northern Territory and Australian Capital Territory.

* Information not available because the figures are subject to sampling variability too high for most practical uses.

**AVERAGE EARNINGS AND HOURS FOR EMPLOYEES (OTHER THAN PART-TIME)
WHOSE HOURS OF WORK WERE KNOWN(a): INDUSTRY GROUPS
STATES, OCTOBER 1964(b)**

State	Average weekly earnings (\$)					Average weekly hours paid for					Average hourly earnings (\$)				
	Manufacturing			Non-manufacturing	All industry groups	Manufacturing			Non-manufacturing	All industry groups	Manufacturing			Non-manufacturing	All industry groups
	Founding, engineering, vehicles, etc.	Other	Total			Founding, engineering, vehicles, etc.	Other	Total			Founding, engineering, vehicles, etc.	Other	Total		
ADULT MALES															
New South Wales	57.03	55.36	56.27	57.38	56.72	43.92	42.76	43.39	41.96	42.82	1.30	1.29	1.30	1.37	1.32
Victoria	56.59	55.03	55.74	55.87	55.79	44.03	43.13	43.54	41.84	42.91	1.29	1.28	1.28	1.34	1.30
Queensland	50.71	51.44	51.21	53.41	52.33	43.38	44.04	43.83	42.37	43.09	1.17	1.17	1.17	1.26	1.21
South Australia	55.49	51.06	54.05	52.77	53.57	44.26	42.31	43.63	42.47	43.20	1.25	1.21	1.24	1.24	1.24
Western Australia	48.20	48.14	48.16	51.12	49.85	42.64	42.64	42.64	41.86	42.20	1.13	1.13	1.13	1.22	1.18
Tasmania	59.16	50.26	53.40	51.08	52.44	42.99	41.92	42.29	40.76	41.65	1.38	1.20	1.26	1.25	1.26
Australia(c)	56.13	53.95	55.04	55.40	55.18	43.91	42.97	43.44	41.98	42.84	1.28	1.26	1.27	1.32	1.29
JUNIOR MALES															
New South Wales	28.84	27.17	28.11	26.15	27.17	41.74	41.55	41.65	37.89	40.81	0.69	0.65	0.67	0.66	0.67
Victoria	27.35	26.50	26.87	26.63	26.75	41.99	41.12	41.50	40.05	40.77	0.65	0.64	0.65	0.67	0.66
Queensland	24.10	23.45	23.72	24.98	24.37	42.37	40.52	41.29	40.55	40.91	0.57	0.58	0.57	0.62	0.60
South Australia	25.59	24.33	25.09	24.51	24.79	42.27	41.59	42.00	39.86	40.90	0.61	0.59	0.60	0.61	0.61
Western Australia	20.50	22.12	21.43	21.40	21.42	40.55	41.16	40.90	40.64	40.75	0.51	0.54	0.52	0.53	0.53
Tasmania	23.74	26.25	25.35	23.72	24.36	39.37	40.74	40.25	39.97	40.08	0.60	0.64	0.63	0.59	0.61
Australia(c)	27.04	25.77	26.41	25.41	25.91	41.80	41.22	41.51	40.09	40.79	0.65	0.63	0.64	0.63	0.64
ADULT FEMALES															
New South Wales	*	*	32.12	35.15	33.35	*	*	39.53	38.71	39.19	*	*	0.81	0.91	0.85
Victoria	*	*	31.71	34.20	32.55	*	*	39.78	38.79	39.45	*	*	0.80	0.88	0.83
Queensland	*	*	29.51	31.58	30.94	*	*	39.64	39.71	39.69	*	*	0.74	0.80	0.78
South Australia	*	*	30.54	31.44	31.05	*	*	40.34	39.74	40.00	*	*	0.76	0.79	0.78
Western Australia	*	*	28.87	31.08	30.48	*	*	39.32	39.81	39.68	*	*	0.73	0.78	0.77
Tasmania	*	*	29.94	31.31	30.58	*	*	38.80	39.29	39.03	*	*	0.77	0.80	0.78
Australia(c)	31.60	31.68	31.66	33.74	32.55	39.67	39.67	39.67	39.04	39.40	0.80	0.80	0.80	0.86	0.83
JUNIOR FEMALES															
New South Wales	*	*	21.08	22.63	22.04	*	*	39.41	39.03	39.18	*	*	0.53	0.58	0.56
Victoria	*	*	21.21	22.04	21.69	*	*	39.58	38.76	39.10	*	*	0.54	0.57	0.55
Queensland	*	*	17.26	19.85	19.09	*	*	39.96	39.67	39.75	*	*	0.43	0.50	0.48
South Australia	*	*	19.03	20.59	20.09	*	*	39.68	39.32	39.43	*	*	0.48	0.52	0.51
Western Australia	*	*	16.83	17.64	17.42	*	*	39.46	39.57	39.54	*	*	0.43	0.45	0.44
Tasmania	*	*	20.97	18.79	19.38	*	*	39.07	39.91	39.69	*	*	0.54	0.47	0.49
Australia(c)	22.14	19.87	20.28	21.27	20.91	39.57	39.53	39.54	39.17	39.30	0.56	0.50	0.51	0.54	0.53

For footnotes see previous page.

In the following table the average weekly earnings, average weekly hours paid for and average hourly earnings at the last pay-period in October for the years 1962, 1963 and 1964 are shown for males and females (adult and junior), other than part-time, by State.

**AVERAGE EARNINGS AND HOURS FOR EMPLOYEES (OTHER THAN PART-TIME)
WHOSE HOURS OF WORK WERE KNOWN(a): ALL INDUSTRY GROUPS
STATES, OCTOBER 1962 TO 1964(b)**

State	Average weekly earnings (\$)			Average weekly hours paid for			Average hourly earnings (\$)		
	October 1962	October 1963	October 1964	October 1962	October 1963	October 1964	October 1962	October 1963	October 1964
ADULT MALES									
N.S.W.	51.00	52.73	56.72	42.11	42.10	42.82	1.21	1.25	1.32
Vic.	49.70	51.68	55.79	42.38	42.76	42.91	1.17	1.21	1.30
Qld.	46.16	48.54	52.33	42.06	42.15	43.09	1.10	1.15	1.21
S.A.	47.04	49.26	53.57	42.26	42.69	43.20	1.11	1.15	1.24
W.A.	47.70	47.15	49.85	41.74	41.44	42.20	1.14	1.14	1.18
Tas.	47.51	48.94	52.44	40.56	41.41	41.65	1.17	1.18	1.26
Australia(c)	49.44	51.23	55.18	42.13	42.30	42.84	1.17	1.21	1.29
JUNIOR MALES									
N.S.W.	24.17	24.55	27.17	40.18	40.40	40.81	0.60	0.61	0.67
Vic.	23.03	23.67	26.75	40.27	40.56	40.77	0.57	0.58	0.66
Qld.	21.75	22.52	24.37	40.21	40.69	40.91	0.54	0.55	0.60
S.A.	21.21	22.50	24.79	40.50	41.18	40.90	0.52	0.55	0.61
W.A.	19.79	20.71	21.42	40.26	40.42	40.75	0.49	0.51	0.53
Tas.	22.64	22.66	24.36	39.80	40.19	40.08	0.57	0.56	0.61
Australia(c)	22.91	23.48	25.91	40.23	40.55	40.79	0.57	0.58	0.64
ADULT FEMALES									
N.S.W.	30.81	31.53	33.35	38.89	39.01	39.19	0.79	0.81	0.85
Vic.	29.66	30.25	32.55	39.10	39.40	39.45	0.76	0.77	0.83
Qld.	28.55	29.27	30.94	39.55	39.52	39.69	0.72	0.74	0.78
S.A.	28.58	28.49	31.05	39.39	39.99	40.00	0.73	0.71	0.78
W.A.	28.55	29.55	30.48	39.39	39.55	39.68	0.72	0.75	0.77
Tas.	28.68	29.07	30.58	39.54	39.19	39.03	0.73	0.74	0.78
Australia(c)	29.95	30.54	32.55	39.08	39.29	39.40	0.77	0.78	0.83
JUNIOR FEMALES									
N.S.W.	19.97	20.59	22.04	39.20	38.88	39.18	0.51	0.53	0.56
Vic.	19.77	19.55	21.69	39.19	38.75	39.10	0.50	0.50	0.55
Qld.	17.85	17.86	19.09	39.65	39.25	39.75	0.45	0.46	0.48
S.A.	18.02	18.16	20.09	39.19	39.32	39.43	0.46	0.46	0.51
W.A.	16.91	17.17	17.42	39.43	39.89	39.54	0.43	0.43	0.44
Tas.	17.84	18.37	19.38	39.42	39.10	39.69	0.45	0.47	0.49
Australia(c)	19.21	19.37	20.91	39.27	39.02	39.30	0.49	0.50	0.53

(a) Private employees only. Excludes managerial, executive, professional and higher supervisory staff, whether or not their hours of work were known, and all other employees whose hours of work were not known.

(b) Last pay-period in October. For definitions and particulars of the coverage of the surveys, etc., see page 358.

(c) Excludes Northern Territory and Australian Capital Territory.

Basic wages in Australia

The concept of a 'basic' or 'living' wage is common to rates of wage determined by industrial authorities in Australia. Initially the concept was interpreted as the 'minimum' or 'basic' wage necessary to maintain an average employee and his family in a reasonable state of comfort. However, it is now generally accepted 'that the wage should be fixed at the highest amount which the economy can sustain and that the "dominant factor" is the capacity of the community to carry the resultant wage levels'.

Under the *Commonwealth Conciliation and Arbitration Act 1904-1965* (see page 344) the Commonwealth Conciliation and Arbitration Commission (previously the Commonwealth Court of Conciliation and Arbitration) may, for the purpose of preventing or settling an industrial dispute extending beyond the limits of any State, make an order or award 'altering the basic wage (that is to say, that wage or that part of the wage, which is just and reasonable for an adult male [female], without regard to any circumstance pertaining to the work upon which, or the industry in which he [she] is employed) or the principles upon which it is computed'. In practice, the Commonwealth Conciliation and Arbitration Commission holds general basic wage inquiries from time to time, and its findings apply to industrial awards within its jurisdiction.

In New South Wales and South Australia the State industrial authorities adopt the relevant Commonwealth basic wage. In Victoria and Tasmania, where Wages Boards systems operate, no provision is included in the Industrial Acts for the declaration of a basic wage, although Wages Boards generally adopt Commonwealth basic wages. In Queensland and Western Australia the determination of a basic wage is a function of the respective State Industrial or Arbitration Courts. Details of basic wage determinations in each State are set out in pages 376-80.

In addition to the basic wage, 'secondary' wage payments, including margins for skill and various kinds of loadings peculiar to the occupation or industry, are determined by these authorities. The basic wage and the 'secondary' wage, where prescribed, make up the 'minimum' wage for a particular occupation. The term 'minimum wage' as distinct from the basic wage is used currently to express the lowest rate payable for a particular occupation or industry. (See also *Adult males—components of total wage rate*, pages 350-1).

The Commonwealth Basic Wage—early judgments

The principle of a living or basic wage was propounded as far back as 1890, but it was not until 1907 that a wage, as such, was declared by a Court in Australia. The declaration was made by an order in terms of section 2 (d) of the *Excise Tariff* 1906 in the matter of an application by H. V. McKay that the remuneration of labour employed by him at the Sunshine Harvester Works, Victoria, was 'fair and reasonable'. Mr. Justice Higgins, President of the Commonwealth Court of Conciliation and Arbitration, defined the standard of a 'fair and reasonable' minimum wage for unskilled labourers as that standard appropriate to 'the normal needs of the average employee, regarded as a human being living in a civilized community'. The rate declared was 7s. (70c) a day or £2 2s. (\$4.20) a week for Melbourne, the amount considered reasonable for 'a family of about five'.

The 'Harvester' standard was adopted by the Commonwealth Court of Conciliation and Arbitration for incorporation in its awards, and practically the same rates continued until 1913, when the Court took cognizance of retail price index numbers, covering food and groceries and rent of all houses ('A' Series) for the thirty more important towns of Australia, which had been published by the Commonwealth Statistician for the first time in the preceding year. At intervals thereafter as awards came before it for review the Court usually revised the basic wage rate of the award in proportion to variations in the retail price index.

During the period of its operation the adequacy or otherwise of the 'Harvester' standard was the subject of much discussion, the author of the judgment himself urging on several occasions the need for its review. During the period of rapidly rising prices towards the end of the 1914-18 War strong criticism developed that this system did not adequately maintain the 'Harvester' equivalent. A Royal Commission was appointed in 1919 to inquire as to what it would actually cost a man, wife and three children under fourteen years of age to live in a reasonable standard of comfort, and as to how the basic wage might be automatically adjusted to maintain purchasing power. The Commission's Reports were presented in 1920 and 1921. An application by the unions to have the amounts arrived at by the inquiry declared as the basic wage was not accepted by the Court, because they were considerably in advance of existing rates, and grave doubts were expressed by members of the Court as to the ability of industry to pay such rates. Further details of the recommendations of the Commission were given in *Labour Report* No. 41, page 102.

The system of making automatic quarterly adjustments to the basic wage in direct ratio to variations in the retail price index ('A' Series) was first introduced in 1921. The practice then adopted was to calculate the adjustments to the basic wage quarterly on the index number for the preceding quarter. The new method would have resulted in a basic wage lower than that to

which employees would have been entitled had the previous practice been continued, and in 1922 the Court added to the basic wage a general loading of 3s. (30c) (known as the 'Powers 3s.'). This loading continued until 1934. The practice of making automatic quarterly adjustments continued until September 1953 (*see below*).

For a description of the several series of retail price indexes referred to in these paragraphs, *see* pages 329-31 of this chapter.

Commonwealth Basic Wage Inquiries, 1930 to 1950

No change was made in the method of fixation and adjustment of the basic wage until the onset of the depression in 1930, when applications were made to the Court for a reduction of wages. From 1 February 1931 the Court reduced all wages under its jurisdiction by 10 per cent. Subsequent applications in 1932 and 1933 for cancellation of this reduction were refused. In May 1933 the Court transferred the basis of the quarterly adjustment of the basic wage from the 'A' Series to the 'D' Series Retail Price Index. Further particulars may be found in the *Labour Report*, Nos. 22 and 23.

The 'Harvester' standard, adjusted by variations in retail price index numbers, continued to be the theoretical basis of the wage of the Commonwealth Court until the judgment of 17 April 1934, when automatic adjustment was transferred to the 'C' Series Retail Price Index. The new rate for the six capital cities, £3 5s. (\$6.50), was in effect the same as that previously paid under the 'A' Series, without the 'Powers 3s.' (30c) and without the 10 per cent reduction, which then ceased to operate. (*See Labour Report No. 25, 1934.*)

The following were the main features of the judgment of the 1937 Inquiry. (a) Amounts were added to the basic wage not as an integral, and therefore adjustable, part of that wage, but as 'loadings' additional to the rates payable under the 1934 judgment (referred to as the 'needs' portion of the basic wage). These loadings, commonly referred to as 'Prosperity' loadings, ranged, for capital cities, from 4s. (40c) to 6s. (60c), that for the six capitals being 5s. (50c). (b) The minimum adjustment of the basic wage was fixed at 1s. (10c) a week instead of 2s. (20c). (c) The basis of the adjustment of the 'needs' portion of the wage in accordance with the variations shown by retail price index numbers was transferred from the 'C' Series to a special 'Court' Series based upon the 'C' Series. (d) Female and junior rates were left for adjustment by individual judges when dealing with specific awards. (*See Labour Report No. 28, pages 77-87.*)

In 1940, trade unions applied for increases in the basic wage. This application by unions was not finalized until 1950, and the various judgments of the Commonwealth Court of Conciliation and Arbitration are summarized below. In February 1941 the Court refused to increase the basic wage owing mainly to the uncertainty of the economic outlook under existing war conditions. The application was stood over for further consideration. The Chief Judge suggested that the basic wage be graded according to family responsibilities by means of a system of child endowment. (Subsequently the Commonwealth *Child Endowment Act* 1941 came into operation on 1 July 1941. *See* the chapter Welfare Services for details.) In 1946 the unions applied for an 'interim' basic wage declaration and in December 1946 the basic wage was increased by 7s. (70c) per week. The Basic Wage Inquiry, 1949-50 completed the case begun in 1940 and continued in 1946. In October 1950 the Court, by a majority decision, increased the adult male basic wage by £1 (\$2) per week; determined that the adult female basic wage be 75 per cent of the adult male rate; and standardized the 'Prosperity' loadings and declared them to be an adjustable part of the basic wage. These decisions operated from the beginning of the first pay-period in December 1950, and the whole of the new basic wage was subject to automatic adjustment as from the beginning of the first pay-period in February 1951. For further particulars of these judgments *see Labour Report No. 38, page 79 and Labour Report No. 39, page 81.*

Commonwealth Basic Wage Inquiries, 1952-53 to 1960

The Commonwealth Court of Conciliation and Arbitration in September 1953 announced its decision in the Basic Wage Inquiry, 1952-53. The decision of the Court was (a) the employers' applications for reduction in the basic wages and for an increase in the standard hours of work were refused; (b) the employers' applications for the deletion of provisions for the adjustment of basic wages in accordance with variations in retail price index numbers were granted; and (c) the unions' application for increases in basic wages was refused.

In May 1956 the Court delivered judgment in the Basic Wage Inquiry, 1956. The Court rejected the unions' application for the re-introduction of automatic quarterly adjustments and the abolition of the 3s. (30c) country differential. The Court increased the adult male basic wage by 10s. (\$1) a week and the adult female basic wage by 7s. 6d. (75c) a week payable from the beginning of the first pay-period in June 1956.

The Commonwealth Conciliation and Arbitration Commission on 29 April 1957 delivered judgment in the Basic Wage Inquiry, 1956-57. The basic wages for adult males were increased by 10s. (\$1) a week and the basic wages for adult females by 7s. 6d. (75c), to come into effect from the first pay-period to commence on or after 15 May 1957. The unions' claim for restoration of automatic quarterly adjustments was refused.

As a result of the Basic Wage Inquiry, 1958 the basic wage for adult males was increased by 5s. (50c) a week, to operate from the beginning of the first pay-period commencing on or after 21 May 1958. The restoration of automatic quarterly adjustments of the basic wage was refused. The claim of the South Australian Government for special treatment for the basic wage for Adelaide was refused.

In its judgment in the Basic Wage Inquiry, 1959 the Commission, by a majority decision, decided that the basic wage for adult males should be increased by 15s. (\$1.50) a week payable as from the beginning of the first pay-period commencing on or after 11 June 1959, and that the system of automatic quarterly adjustments should not be restored.

The Conciliation and Arbitration Commission, in its judgment in the Basic Wage Inquiry, 1960, decided that there would be no increase in the basic wage and no restoration of quarterly adjustments to the basic wage.

In the Differential Basic Wage Inquiries, 1960 the Commission decided that the 3s. (30c) country basic wage differentials should be eliminated from awards of the Commission, the new basic wages to be payable from the beginning of the first pay-period commencing on or after 1 January 1961. The claim by employers' associations in South Australia for special treatment for the Adelaide basic wage was refused.

For details of these inquiries *see* earlier issues of the Year Book and the *Labour Report*.

Commonwealth Basic Wage Inquiries, 1961, 1962 and 1963

In its judgment in the Basic Wage and Standard Hours Inquiry, 1961 the Commonwealth Conciliation and Arbitration Commission made the following decisions: (1) the employers' claim for an increase in the standard hours of work from forty to forty-two a week with a concomitant increase in the weekly wage equivalent to two hours' pay at ordinary rates was refused; (2) the unions' claim for restoration of automatic quarterly adjustments was refused; (3) the basic wages for adult male employees were increased by 12s. (\$1.20) per week to come into effect from the beginning of the first pay-period commencing on or after 7 July 1961; and (4) that in February 1962 the only issue to be considered in regard to the basic wage should be why the money wages fixed by this decision should not be adjusted in accordance with any change in the Consumer Price Index. To give effect to this the applications were adjourned till February 1962.

The adjourned hearing was held on 20 February 1962. The Commission, after hearing submissions, decided that there would be no alteration in the basic wage until further order; and further adjourned the application before it until February 1963.

The application again came before the Commission on 5 February 1963. In its judgment the Commission decided that there would be no alteration in the basic wage rates, and that the application was further adjourned until February 1964.

Commonwealth Basic Wage Inquiry, 1964, and Employers' Total Wage Case, 1964

On 25 February 1964 the Commonwealth Conciliation and Arbitration Commission began hearing an application by respondent unions for a variation in the Metal Trades Award and the Pastoral Industry Award, and an application by the employers for a variation in the Metal Trades Award. The unions sought an increase of 52s. (\$5.20) a week in the basic wage portion of the Metal Trades Award and the Pastoral Industry Award, the abolition of the disparity in respect of station hands under the Pastoral Industry Award, and the re-introduction of automatic quarterly adjustments based on the Consumer Price Index. The employers sought an alteration to the present wage structure, involving the abolition of the 'basic wage' and 'margins' components of the award and the substitution of a total wage, with increases ranging from 5s. (50c) to 8s. (80c) a week.

It was decided to hear the claim by the unions first, but to reserve the decision until the employers' Total Wage Case was heard immediately afterwards. Since the arguments used in the first case were likely to be similar to those used in the employers' hearing it was deemed expedient for Commissioner Winter, who was a member of the bench for the Total Wage Case, to attend the first hearing as an observer.

The Basic Wage Inquiry, 1964

For the hearing of this case the Conciliation and Arbitration Commission was constituted in Presidential Session by Kirby C.J. and Gallagher, Moore, and Nimmo JJ. Commissioner Winter was present as an observer only.

The application by the unions (*see above*) was opposed by private employers generally. The Commonwealth Government intervened in the public interest, but neither supported nor opposed the claim. Leave to intervene was granted to the Australian Council of Salaried and Professional Associations and thirty affiliated organizations of that Council, to nineteen organizations affiliated with the High Council of Commonwealth Public Service Organisations, and to the State of Tasmania; these parties supported the unions' claims.

At the conclusion of the Basic Wage Inquiry and the Total Wage Case the bench on 9 June 1964, handed down the following decisions.

'1. Unanimous decision that the unions' claim for the restoration of automatic quarterly adjustments be refused.

'2. Unanimous decision that the application of The Australian Workers Union for the deletion from the Pastoral Industry Award of the basic wage for station hands be granted. This means abolition of the disparity of 1s. [10c] per week in respect of station hands.

'3. Unanimous decision that the basic wages of adult male employees covered by Federal Awards be increased. The Commission is equally divided in opinion on the amount of increase, the President and Mr. Justice Moore being of the opinion that it should be 20s. [\$2] and Mr. Justice Gallagher and Mr. Justice Nimmo that it should be 10s. [\$1]. The Act (Section 68) provides that if the Commission is equally divided in opinion the question shall be decided according to the opinion of the President. The decision of the Commission is therefore that the basic wages of adult male employees covered by Federal Awards shall be increased by a uniform weekly amount of 20s. [\$2].

'4. The new rates will come into operation from the beginning of the first pay period to commence on or after 19 June 1964, subject to special cases.

'5. The basic wages which shall be increased by 20s. [\$2] per week shall be those prescribed for adult males in the Pastoral Industry Award, as varied by Decision No. 2 above, and those basic wages as at present prescribed for adult males in the Metal Trades Award and all the Awards respectively the subject of the applications and disputes which have been ordered by the Commission to be joined for hearing and decision with the applications concerning the Pastoral Industry Award and the Metal Trades Award. The awards concerned are set out in the schedule to the Judgment of the President and Mr. Justice Moore.'

Three separate judgments, one by Kirby C.J. and Moore J. and one each by Gallagher J. and Nimmo J., were presented and a summary of these judgments is given below.

Kirby C.J. and Moore J. Discussing the unions' claims Kirby C.J. and Moore J. in their judgment said:

'The amount of 52s. [\$5.20] is ascertained by applying to the basic wage of September 1953 movements in the "C" Series Index from the September quarter 1953 until the June quarter 1961, and thereafter movements in the Consumer Price Index until December 1963. A figure of 20s. [\$2] is arrived at by this method of attempting to restore the value of the 1953 basic wage. The 20s. [\$2] is then added to 288s. [\$28.80], the present Six Capital Cities' basic wage which for the purposes of the claim would become 308s. [\$30.80]. Then the assumption is made that national productivity has increased at a rate of one per cent per annum since 1952-53. This, when compounded, is 10.4 per cent and 10.4 per cent of 308s. [\$30.80] is 32s. [\$3.20] which with the 20s. [\$2] for price movements gives the 52s. [\$5.20] claimed.'

Kirby C.J. and Moore J. stated they would reject the use of the 'C' Series Index which had been becoming progressively less satisfactory and was no longer published by the Commonwealth Statistician. If the Consumer Price Index was used instead, the amount of the claim became 31s. [\$3.10] and the unions conceded that the Consumer Price Index might be the more appropriate index to use. After discussing the two indexes and the use of different base years from which to measure the increase in productivity, they said that the unions, while not abandoning their 52s. [\$5.20] claim, had pressed for an increase of 31s. [\$3.10] with alternatives of 13s., 20s., 21s., 25s., 27s., and 32s. (\$1.30, \$2, \$2.10, \$2.50, \$2.70 and \$3.20 respectively).

Automatic quarterly adjustments. The unions also asked for the re-introduction of automatic quarterly adjustments to the basic wage; this was opposed both by the employers and the Commonwealth Government. Their Honours agreed with what was said in the 1961 Basic Wage judgment about automatic quarterly adjustments and therefore rejected this part of the claim.

Pastoral Award Differential. The Australian Workers Union had asked that the 1s. (10c) a week difference between the basic wage for station hands and shearing employees be removed, and explained the history of the difference as related to basic wage concepts, which in its submission no longer applied. The employers argued that questions of principle were involved and that they should be given an opportunity of presenting a more detailed case before the application was fully considered.

Kirby C.J. and Moore J. said they appreciated that the difference between these two basic wages was at different times in the past a matter of some significance, not only because statistics were available upon which to adjust these different basic wages, but also because the amounts between them at times were considerable. In theory the Commission should undertake a lengthy exercise to examine the history and perhaps other factors in detail, but since the amount involved was only 1s. (10c) and would remain at 1s. (10c) forever if the application were refused, they thought the unions' application should be granted and the difference between the two basic wages, which was now quite artificial, should be removed.

Base year. Their Honours discussed the unions' use of 1952-53 as the base year because of the elimination of automatic quarterly adjustments at that time. They indicated that in 1961 the Commission had rejected that year and preferred 1949-50 as a base year from which to consider productivity movements. They considered that the important thing was that the 1961 decision was correct and that the unions were now strongly relying upon it as a proper approach to wage fixation. They said:

'In our opinion the 1961 decision is the proper starting point for our consideration of the basic wage both because it was the latest fixation in point of time and because it applied correct principles.'

The judgment went on to say that the unions were able to show different and even opposite movements in productivity by applying different deflators to the Gross National Product, and the judges concluded that the conflict shown by these different groups of figures confirmed views which the Commission had expressed before about relying too heavily on figures of this kind to control its decisions.

Attitude of the parties. The unions' claim, both for an increase in the basic wage and the restoration of quarterly adjustments, was supported by the State of Tasmania, the Australian Council of Salaried and Professional Associations and the High Council of Public Service Organisations, all of whom had been granted leave to intervene.

The attitude of the employers was not of opposition to a wage increase itself, but one of desiring to see a total wage in the Commission's awards following the abolition of a basic wage. They submitted that movements in wages should be kept within movements in productivity. Their Honours said that although this was related to their total wage application, it would also apply to basic wage increases, which caused movements in total wages. In view of what was contained in the majority judgment in the Total Wage Case they did not propose to discuss the employers' proposal as to the fixation of wages. They agreed with what was said in that decision about that proposal.

The applications to increase the basic wage could be considered in an atmosphere in which employers were prepared to agree to wage increases, though on certain terms. The employers attacked the principles laid down in the 1961 Basic Wage decision, in particular the *prima facie* adjustment for prices. They also attacked the amount awarded. The Commonwealth Government, while intervening neither to support nor oppose an increase of the basic wage, did not attack the concept of a basic wage though it criticized in some detail the 1961 Basic Wage decision. On the other hand the unions relied strongly on that decision. It was necessary to look closely as to what was said and done in that case.

1961 Basic Wage decision. The basic wage awarded in 1961 had taken into account the capacity of the economy, the standard set by the basic wage of 1960 and increases in productivity up to and including 1959-60, and it was not correct to assert that the 12s. (\$1.20) increase was granted merely because of the movement in prices. Their Honours rejected the employers' submission that the Commission had adopted a policy of granting increases which amounted to the sum of price movements and productivity increases since the last fixation.

In 1961 the Commission made a positive finding that it would assume that the capacity of the economy would continue to be such as to enable the real value of the increased basic wage to be maintained. It indicated that there would be consideration of price movements each year, and that a review of the economy could take place every three or four years. This did not preclude any party from exercising its right to come to the Commission more frequently, but in the absence of special circumstances the next review of the basic wage would only be a consideration of price movements. The only issue would be whether the money wage should be adjusted in accordance with any change in the Consumer Price Index, and the onus would be on the party opposing such an alteration to show that it should not be made.

Relying on this decision the unions had waited for three years before making an application for an increase in the basic wage, and to now reject the implications of that decision might properly be regarded by the unions as a breach of faith by the Commission.

Overall approach to basic wage fixation. Having confirmed the 1961 decision, Kirby C.J. and Moore J. stated their overall approach to general applications for alteration in the basic wage. It was necessary to look at the state of the economy, past, present and future. They explained that in considering the development of the economy two elements were given most prominence. They were the movements in prices and productivity, but these movements should not be applied automatically and inevitably, nor should they be the only things considered in a review of the real basic wage. They said they had endeavoured to look at the economy in the round, and base their decision on its capacity since 1961, its capacity now and its capacity for the predictable future.

It was thought that a general review of the economy should take place every three or four years, but while it was desirable to adhere to the 1961 approach in this case, it might be necessary in different circumstances for the Commission to vary this approach. If either of the parties sought a more frequent review of the real wage the Commission would have to deal with it.

The judgment said they would leave that to the future because they had decided that this application should be determined here and now. The only departure from the 1961 procedure was that they now considered it preferable for the future to leave it to the parties to apply, as they might be advised, either for money or real changes in the basic wage. They would not, therefore, stand this matter over from year to year as has been done since 1961.

General conclusion. Kirby C.J. and Moore J. considered economic capacity by reviewing the indicators normally considered by the Commission and concluded that:

'A consideration of all the indicators separately and collectively must lead to the conclusion that in all its aspects the Australian economy is at present buoyant. . . .

' . . . We are conscious that there is some fear in the community that unless care is exercised the present situation may develop into an inflationary boom with possible consequent dampening down measures. However, we think that the Commission would not be fixing a basic wage which was just and reasonable if it did not act on the present state of the economy which is expanding and buoyant with no positive sign of inflation although there is an upward tendency in some prices. As we have noted the Reserve Bank is watchful about inflation and we would assume that other authorities will be equally watchful.

'In these circumstances there is and can be no real dispute that the basic wage should be significantly increased. Bearing in mind all we have said we conclude that a just and reasonable increase to the male basic wage would be an amount of 20s. [\$2] a week. We would point out that the 20s. [\$2] by which we would increase the basic wage is not arrived at by the method suggested by the unions in regard to that amount. . . . It is our view that the present and predictable capacity can provide for such an increase and that a lesser sum would not be just and reasonable. This increase should in our view come into operation from the beginning of the first pay period to commence on or after 19th June, 1964.

'The increase of 20s. [\$2] a week granted this year compares with the increase of 12s. [\$1.20] three years ago. In the 1961 judgment it was calculated that the 12s. [\$1.20] added £60 million [\$120 million] to the wages bill or something less than two per cent of the £3,311 million [\$6,622 million] paid as wages and salaries during the preceding year. Using the same approach but conceding that it is only a rough rule of thumb method the 20s. [\$2] now granted would increase the wages bill by £100 million [\$200 million]. This would be approximately 2.5 per cent of the £3,965 million [\$7,930 million] of wages, salaries and supplements during 1962-63. This year's 20s. [\$2] represents an increase of something under four per cent on the figure of average weekly earnings.'

It was the view of the judges that their decision should be applied to all the applications and disputes which had been ordered by the Commission to be joined for hearing and decision with the original applications and any other applications which were subsequently presented.

Gallagher J. After reviewing the evidence presented by the unions, employers and the Commonwealth Government, *Gallagher J.* in his judgment said:

'I have decided to proceed on the basis that the capacity of the economy is the predominant issue in the assessment of the basic wage. In the application of this principle, I shall adhere to the rule that the wage should be the highest which the community can afford'.

However, he said he would not ignore the industrial, social and economic consequences of the Commission's actions.

'My adherence to the capacity principle does not, as I understand the position, bring me into conflict with the procedure . . . introduced by the Full Bench in the decision which resulted from the Basic Wage Inquiry 1961'.

His Honour said he agreed with the Full Bench that the purchasing power of the basic wage had always been a matter of importance, and did not consider that the *prima facie* adjustment for prices or the onus placed upon the employers created an undesirable procedure.

'Provided the relevant evidence is available (and I see no sound reason why it should not be), it is not unreasonable that the employers may be called upon to satisfy the Commission that price increases, although admittedly having occurred, should not be reflected in the basic wage. The matter of fundamental importance, as I see it, is that the employers in raising objection should have the right fully to raise capacity to pay, that is to say, it should be open to them to examine all material aspects including the accepted indicators and then to establish that in the light of the economic position viewed as a whole, an alteration based alone on increased prices should not be made.

'I have already indicated my belief that the 1961 basic wage decision did not constitute a departure from the principle that capacity to pay is the predominant issue but if there has been such a departure I would to that extent respectfully refuse to apply the decision.

'My concurrence with the "1961 procedure" is, as I have already indicated, restricted to the extent to which it provides for a *prima facie* adjustment for price movement. For the reason that the taking into account of productivity increases over an extended period could lead to a large increase of the basic wage, I would be inclined to the view that adjustments for productivity, if they are to be made, should be effected at fairly frequent intervals. In this way I hope to avoid the serious impact upon the economy flowing from a substantial increase.'

His Honour did not consider it necessary to discuss the accepted indicators in detail since it was conceded on behalf of the Commonwealth Government that the situation of the economy was favourable.

Gallagher J. said that expressions of opinions of economists extracted from documents tendered as evidence left the impressions that: (a) the Australian economy was developing and productivity would increase; (b) there was a lag in award wages as compared with average weekly earnings; (c) the position of the lower wage groups could not be alleviated more than temporarily by a wage rise which accrued indiscriminately to all wages earners; (d) smaller adjustments made with greater frequency were preferable to substantial adjustments made after lengthy intervals; (e) a low rate of increase of wages was unlikely to have much impact on the rate of technical progress; and (f) a rate of increase which was too high could cause economic dislocation.

Although the basic wage had remained static for almost three years, average weekly earnings had consistently increased. Those who were on the average or above it appeared to have received the benefits of price movements and productivity, but it might well be that, as a matter of equity and good conscience, an improvement in the standard of living was required for those appreciably below the average.

There was some statistical evidence which would give rise to the inference that the number of workers whose earnings were little above the basic wage were relatively few in number, but the figures did not take into account employees in government undertakings and therefore did not necessarily provide a conclusive guide.

After considering particulars relating to personal consumption expenditure, new motor vehicle registrations, number of new houses and flats commenced and completed, and savings banks deposits, His Honour said that some increase was warranted, but the important thing for the wage earner was that the amount be of real value. A substantial increase could seriously upset price stability. A moderate increase should be much less likely to do so, and he considered that a middle course would be best.

After referring to scope for private arrangements between employers and employees on wages, and for the use of incentive payments, with the object of demonstrating that the keeping of the basic wage within moderate limits need not result in depressed earnings, he announced his conclusion that the amount of the increase should be 10s. (\$1) a week.

He also concurred with the others on the Bench in rejecting the application for automatic quarterly adjustments, and agreed to the abolition of the difference in the basic wage between station hands and shearing employees.

Nimmo J. The separate judgment handed down by *Nimmo J.* said that if the basic wage current at the date of the review was not the highest that the capacity of the community as a whole could sustain it was the duty of the Commission to alter it accordingly. Since any alteration operated in the future the Commission was obliged to estimate the highest amount the community should sustain during the period of operation of the alteration. In estimating this amount the Commission considered a variety of factors, each of which it weighed and considered against the others. Any party was free to urge the consideration of factors other than those normally used by the Commission.

The Commission used various 'indicators' to assess the present and future state of the economy, considered national productivity, total wages and recent awards, movements in prices and the consequences of any alteration in the basic wage.

In considering the applicants' claims *Nimmo J.* said he did not accept the unions' contentions that the court had wrongly abolished the system of automatic quarterly adjustments in 1953 and that since that date wage earners had not received the full share in increases in national productivity to which they had been entitled.

He examined the economy of the country and concluded that the indicators disclosed that the Australian economy was in a healthy state and pointed towards it remaining in that state.

After examining past and future productivity he said:

'over the last three years, depending upon the methods adopted for assessing the Gross National Product and calculating the number of persons employed, national productivity may be estimated as having increased annually by between 1.2 per cent and 2.4 per cent.

The breadth of this range is a clear indication that it is not possible with existing statistical information to estimate growth in national productivity with precision. The trend, which emerges from the examination, is for a moderate but steady growth which may, on present indications, be reasonably expected to continue in the future.'

Over-award payments had increased at a faster rate than had award wages and an increase in the basic wage would spread throughout the ranks of wage earners and not be absorbed into over-award payments. In the past most of the productivity gains had been distributed in a variety of forms to consumers, employers and employees. In 1963 the Commission had increased annual leave generally in secondary industry by one week and had increased margins in the Metal Trades Industry, and in the following years awarded thirteen weeks long service leave after fifteen years service to employees under the Metal Trades and Graphic Arts Awards. He said:

'Consumer prices have been steady since June 1961. It must be remembered, however, that early in this period the economy was depressed and unemployment existed and that the recovery which has taken place since then has been until recently of a gradual nature.'

He drew attention to such factors as the state of liquidity, the high average income of adult male wage earners and the increasing shortage of labour in some industries, and said:

'With these potential inflationary elements present it is my view that a substantial increase in the basic wage would aggravate the position and could easily trigger off a wage-price spiral which would produce the undesirable consequences mentioned in the earlier references I have made on this subject.'

He concluded that the basic wage for adult males was not the highest the capacity of the community as a whole could sustain now and in the future.

'Having regard to the current state of affairs and to the conclusion I have reached that for the time being there should be annual reviews of the basic wage it is my opinion that the increase which is justified is one of 10s. [\$1] to apply until the next annual review.

'Since I find myself at variance with the learned President and my brother Moore, on the question whether the 1961 procedures should be continued, I think it incumbent on me to give my reasons in detail.'

These reasons are summarized below.

(a) It was incompatible with the principle of 'capacity to pay' to single out any particular factor for separate treatment. (b) An upward movement in the Consumer Price Index could lead to an application which might not be opposed by the employers who would simply increase domestic prices. (c) Under a system of annual reviews a complete consideration of an application for an increase in the basic wage proceeded on the basis that an increase in the capacity to pay should lead to a rise in the wage—such a rise would ensure that the real value of the basic wage was protected. (d) Annual reviews reduced the margin of error involved in the Commission's prognosis in the respect of the future capacity of the community to sustain increases. (e) Previous statements by the Court and the Commission pointed out that it was not the policy to determine basic wages without regard to the general level of secondary wages. He said:

'no explanation has been advanced to show how this principle can be applied in a prognosis of capacity extending over a period of three or four years, because the nature and extent of marginal applications over that period cannot be foreseen'.

(f) A full review after a period of time might lead to one big increase, as opposed to a series of moderate increases which the economy might have a better chance of absorbing. (g) Under the 'capacity to pay' principle a party seeking a change in the basic wage should show that it was justified having regard to the capacity of the community as a whole to sustain it. One party should not be freed from the responsibility of establishing that a change was justified by mere proof of a change in one factor among many and place upon its opponent the task of proving that it was not, whether the movement in prices be up or down. (h) During a long delay between hearings, pressure was likely to develop for increases in over-award payments and margins, and because of the general lack of bargaining strength of the low wage earners they might suffer. (i) There were no difficulties in the way of annual hearings as the parties now had more common ground than previously. A further improvement might be the presentation of written cases which could be studied by the parties and then spoken to in the sittings of the Commission.

While opposed to the 1961 procedures, Nimmo J. said that if they were adhered to he would prefer a scheme of staggered increases. He agreed with the other members of the bench that the application to restore automatic quarterly adjustments be refused, and that the differential between station hands and shearers be abolished.

Employers' Total Wage Case, 1964

The case was heard in Presidential Session by Kirby C.J., Gallagher, Moore, and Nimmo JJ. and Commissioner Winter.

A claim was made by the Metal Trades Employers Association, the Victorian Chamber of Manufactures and the Metal Industries Association of South Australia for the deletion from the Metal Trades Award of the basic wage provisions and for the insertion in the award of a wage unless the Commission also agreed to implement their submission that movements in wages but made it clear that they did not desire the Commission to grant their application for a total wage unless the Commission also agreed to implement their submission that movements in wages should be kept within movements in productivity. They also asked that, since the application was a vehicle by which the Commission would establish a new approach to the principle of wage fixation, the decision should not be confined to the Metal Trades industry but applied generally to the Commission's awards. The unions opposed the application, stressing the importance of the basic wage to the lower paid worker, its historical significance and the attitude of Parliament.

The Commonwealth Government, when intervening, emphasized the need for flexibility, the desirability of adherence to the capacity to pay principle, the danger of fixing wage rates solely in relation to price movements or productivity, the undesirability of assessing rates on purely economic grounds, the advantage of work value fixations, and that it was wrong to proceed on the basis that whenever a change took place in one margin all margins should change.

On 9 June 1964 the Commission announced the following decision:

'The members of the bench are unanimous in the opinion that the application of the employers for the deletion from the Commission's awards generally of the basic wage provision and for the insertion in those awards of a wage expressed as a total wage should be rejected.'

Three separate judgments, one by Kirby C.J. Moore J. and Commissioner Winter, and one each by Gallagher and Nimmo JJ., were handed down, and a summary of these judgments is given below.

Kirby C.J., Moore J. and Commissioner Winter. After discussing the claim by the employers the judgment said:

'Allowing for the attractiveness of greater simplicity and predictability and appreciating the thoughtful arguments put by [the employers] we find ourselves unable to implement the employers' proposal, at any rate at the present time, particularly as it has not yet been successfully applied elsewhere.'

The judgment gave six reasons for rejecting the application and emphasized that they were interrelated and should not be treated separately.

Firstly, it had not been shown that the proposal could successfully be put into practice by the Commission. Nor was it established that any other country had successfully applied the principle that movements in wages and movements in productivity should move in consonance with each other at least generally or over any appreciable period of time. The role of the Commission was to prevent and settle industrial disputes, and the Act made the Commission neither an economic planning body nor a national commission dealing with all types of income or even all wages and salaries. The Commission was required to deal with such industrial disputes as were brought before it and was neither required nor allowed to do anything more, although it did not operate in a vacuum or ignore the economic consequences of its decisions.

Secondly, the proposal would be applied by the Commission in a community where there was no consideration of incomes overall and no overall authoritative control of prices as applied in the writings on which the employers relied. While not underestimating the importance of wages and salaries in the national economy, the application of the proposal to wages and salaries only was another reason for declining, at least at this stage, to attempt to apply the employers' proposal. It might be important, however, to note that different considerations might well apply if the Commission's work was performed in a setting in which there was an overall policy both as to incomes of all types and as to prices.

Thirdly, the Commission not only did not fix all incomes but did not even fix all wages and salaries. Accordingly even if it would, it could not cause the theory to work in Australia in the way suggested by the employers. Federal awards covered only some forty-two per cent of male employees and thirty-one per cent of female employees. In New South Wales, Queensland and Western Australia the basic wage under State awards was different from the Federal basic wage. Margins were not always the same in State as distinct from Federal awards, and moreover there was a considerable proportion of the work force not covered by awards at all. It was an important factor that the Commission did not and could not fix all wages and salaries, and this would be a very real obstacle to the implementation of the employers' proposal.

Fourthly, there were technical problems involved in deciding on the method of determining a measure of productivity and of choosing between award rates or average weekly earnings as the base from which to start to apply the proposed formula, each of which would for the purposes of this decision involve inaccuracies and each would produce a different result. Considering the statistical information presently available and the fact that there was no agreement or demonstrably sound argument as to which particular figures should be used, the Commission should not give effect to the employers' proposition.

Fifthly, the application of the proposed formula in the way suggested by the employers to a total wage would reduce the flexibility of wage fixation and in particular of wage fixation by the Commission. It was considered that the introduction of the employers' proposal would if anything diminish the likelihood of work value cases and would probably tend to detract from the valuable work at present being done by individual members of the Commission in individual industries.

Sixthly and finally, the Commission considered it should not allow a theoretical consideration to interfere with the rectification of what it considered to be an inequitable situation which required correction, however the original inequity might have arisen. The implementation of the employers' theory could prevent the Commission increasing wages even when in the view of the Commission the wages would not be just and reasonable unless increased.

Considering some of the non-economic arguments put forward by the employers, the judgment said that it was perhaps vital that the basic wage or something very like it should have come into being and have been retained in Australia. It might be that if a national wage were to be introduced afresh at this time it might not be similar to the basic wage. But the basic wage became a national phenomenon and the real problem was whether that phenomenon still remained of value in the field of national wage fixation. The Commission did not think that in the present circumstances or at the present time a case for the abolition of the basic wage had been made out.

Kirby C.J., Moore J. and Commissioner Winter were of the view that the fact that the basic wage might not be an actual paid wage was of no great significance in these proceedings.

They were attracted to the suggestion that since the unions had used similar economic arguments for the fixation of both wage and margins, it would be more logical and tidier to require these arguments to be applied at the same time to a total wage. However, this overlooked the function and duty of the Commission to prevent and settle industrial disputes, in which tidiness might have to give way to more important considerations. The parties were in fundamental disagreement on the issue of a total wage and there would have to be more cogent reasons than tidiness before the Commission would approve the drastic change sought by the employers.

The employers submitted that as soon as the Commission increased the basic wage that fact by itself created a 'legacy claim' for marginal increases. The real truth of the matter was that unions based their claims for both basic wage and marginal increases on the same economic grounds and therefore inevitably there must be a similarity between such margins cases and basic wage cases. It was at least as likely as not that increases in the basic wage had an effect in delaying and moderating marginal claims and not in increasing and accentuating them.

The Commission could in each case coming before it create a wage which had no basic wage element, but it thought that at the very least the question of the abolition of the basic wage must be seen against a background of Parliamentary recognition and perhaps even approval of its continued existence.

The judgment rejected the application in the knowledge that the Commission did not consider cases of national importance in isolation. It had been the practice of the Commission when dealing with such cases to bear in mind other decisions of the Commission given in other cases of national importance, and this was a practice which would continue.

Gallagher J. In his judgment *Gallagher J.* stated that, in short, the employers' claim was that the basic wage was an anachronism and that it should give way to modern methods of fixation and the time had arrived for its abolition. The unions had stressed the importance of the basic wage particularly to lower paid workers and argued that its abolition had never been contemplated.

The basic wage for adult males was described as 'that wage or that part of a wage, which is just and reasonable for an adult male, without regard to any circumstances pertaining to the work upon which or the industry in which he is employed'. For highly remunerated employees the wage element as thus described might be of little significance, but while throughout the length and breadth of Australia there might not be one employee on the basic wage there were many thousands whose marginal element when compared with the basic wage was insignificant.

Irrespective of the nature of his work and the conditions under which it was performed an employee was entitled to have included in his wage a monetary sum aimed 'at the highest living standard for the wage earner which the community can afford'. It was right that there should exist a separate wage element which was just and reasonable without regard to any circumstances pertaining to the work upon which or the industry in which a person was employed.

Gallagher J. concluded:

'There may exist grounds for further consideration of present methods of marginal fixation particularly the system which can have the effect of creating widespread percentage increases almost simultaneously and without regard for the nature of the work or the conditions under which it is done but the case for the retention of the basic wage is beyond argument. The application should be refused'.

Nimmo J. In a separate judgment *Nimmo J.* stated that the basic wage remained a factor of great importance in the minds of wage earners. There were large numbers of wage earners who received relatively small payments in addition to the basic wage, and the closer their wages were to the basic wage the greater the significance it had for them. Although there appeared to be a measure of truth in most of the reasons the employers submitted to support the change, even if they were wholly true they would not justify that change, nor if the change occurred would it produce the results they claimed for it.

Nimmo J. then enumerated his reasons, which are summarized as follows. (a) The concept of the basic wage had existed for more than fifty years and was now a well accepted and fundamental feature of the nation's industrial, social and economic life, which it had served well. (b) In view of the effective way in which the present system had served the nation, it should not be changed upon the application of the employers against the strong opposition of the unions, and against the wish of the Commonwealth Government. (c) In view of (b) above the change sought would be more likely to increase than reduce the number of industrial disputes in the community. (d) The employers claimed that while the Commission stated that its decisions on margins in Metal Trades Awards should not be automatically applied to other awards, this in many cases did happen. This submission would be more in point in a case involving only the fixation of margins, and submissions of that nature did not justify so drastic a remedy as the abolition of the basic wage. (e) The Act showed that Parliament intended that a dispute as important as a basic wage dispute should be determined by the Commission in Presidential Session, but a total wage dispute which would be as at least as important would not, as the Act now stood, be heard in Presidential Session. The Commission should hesitate before introducing new procedures which would produce this result. (f) It was true that there were disadvantages in the present system but there were advantages as well, not the least of them being its flexibility. *Nimmo J.* was not convinced that the disadvantages of the present system outweighed its advantages or that the suggested new system would not have just as many disadvantages of the same magnitude.

National Wage Cases of 1965

Hearing in these cases commenced on 2 March 1965 before Kirby C.J., Gallagher, Moore, Sweeney and *Nimmo JJ.*, of the Commonwealth Conciliation and Arbitration Commission. Claims by the employers and the trade unions were heard concurrently.

The employers' claim (Part A) was for the abolition of the concepts of the basic wage and margins, and the introduction into the Metal Trades Award of an obligation to pay a total wage made up of the sum of the amounts expressed in terms of the basic wage and a margin, plus an amount equivalent to one per cent of such sum. The employers also asked (Part B) that, in respect of the ensuing twelve months, the level of the basic wage and the level of margins, in so far as the latter is determined upon general economic grounds, should be decided simultaneously. It was open to the Commission under Part B of these claims to decide whether there should be an increase in (a) the basic wage element alone; (b) the marginal element alone; or (c) both the basic wage and marginal elements, to whatever extent in respect of each element the Commission deemed proper.

The trade unions sought new basic wage rates incorporating increases proportionate to the rises in the Consumer Price Index. For the Six Capital Cities basic wage the increase claimed was 12s. (\$1.20) a week for adult males.

The Commission announced its decision on 29 June 1965, when three separate judgments were handed down—a joint judgment by Gallagher, Sweeney and *Nimmo JJ.*, and separate judgments by Kirby C.J. and by Moore J. In accordance with the opinion of the majority (namely, that of Gallagher, Sweeney and *Nimmo JJ.*), the order of the Commission was to the effect:

- (a) Part A of the employers' application was refused;
- (b) With regard to Part B of the employers' application—
 - (i) there would be no alteration in the basic wage,
 - (ii) with effect from the first pay-period commencing on or after 1 July 1965 each margin in Clause 4 of the Metal Trades Award was increased by an amount equal to $1\frac{1}{2}$ per cent of the sum of the Six Capital Cities basic wage and that margin;
- (c) the application of the unions for an increase in the basic wage was refused.

The majority judgment anticipated that, subject to the question of capacity of a particular industry and the question of those margins which had already been increased on general economic grounds (since 1963), the increases awarded would be speedily reflected throughout the awards of the Commission.

Further details will be included in the next issue of this Year Book.

Commonwealth basic wage rates operative

The following table shows the movements in the Commonwealth basic wage rates for each State capital city and for the six capitals during the period 1939 to 1964.

**COMMONWEALTH BASIC WAGE: WEEKLY RATES, ADULT MALES(a)
STATE CAPITAL CITIES, SEPTEMBER 1939 TO JUNE 1964**

(\$)

Date operative(b)	Sydney	Mel- bourne	Brisbane	Adelaide	Perth	Hobart	Six capitals
September 1939 . . .	8.10	8.10	7.60	7.80	7.70	7.70	7.90
November 1942 . . .	9.70	9.70	9.10	9.30	9.10	9.20	9.50
" 1943 . . .	9.90	9.80	9.30	9.40	9.40	9.50	9.70
" 1944 . . .	9.90	9.80	9.30	9.30	9.40	9.40	9.60
" 1945 . . .	9.90	9.80	9.30	9.30	9.40	9.40	9.60
" 1946 . . .	10.10	9.90	9.40	9.50	9.50	9.70	9.80
December 1946 . . .	10.80	10.60	10.10	10.20	10.20	10.30	10.50
November 1947 . . .	11.20	10.90	10.50	10.60	10.60	10.70	10.90
" 1948 . . .	12.20	12.00	11.50	11.60	11.60	11.80	11.90
" 1949 . . .	13.20	13.00	12.50	12.60	12.90	12.80	12.90
" 1950 . . .	14.60	14.30	13.50	13.70	13.90	13.90	14.20
December 1950(c) . . .	16.50	16.20	15.40	15.80	16.00	16.00	16.20
November 1951 . . .	20.70	19.90	18.50	19.50	19.70	19.90	20.00
" 1952 . . .	23.70	22.80	21.60	22.90	22.80	23.00	23.10
August 1953(d) . . .	24.30	23.50	21.80	23.10	23.60	24.20	23.60
June 1956 . . .	25.30	24.50	22.80	24.10	24.60	25.20	24.60
15 May 1957 . . .	26.30	25.50	23.80	25.10	25.60	26.20	25.60
21 May 1958 . . .	26.80	26.00	24.30	25.60	26.10	26.70	26.10
11 June 1959 . . .	28.30	27.50	25.80	27.10	27.60	28.20	27.60
7 July 1961 . . .	29.50	28.70	27.00	28.30	28.80	29.40	28.80
19 June 1964 . . .	31.50	30.70	29.00	30.30	30.80	31.40	30.80

(a) Rates prescribed by the Commonwealth Conciliation and Arbitration Commission (before 30 June 1956 the Commonwealth Court of Conciliation and Arbitration). Rates include prosperity loadings, where applicable.
 (b) Rates operative from the beginning of the first pay-period commencing in the month shown or commencing on or after the date shown. (c) From December 1950 the basic wage rates for adult females have been 75 per cent of the rates for adult males. (d) Automatic adjustment discontinued (see page 365).

A table showing Commonwealth basic wage rates from 1923 to 1964 was published in the Appendix to *Labour Report* No. 51.

Basic wage rates, Australian Territories

In the Northern Territory there are two basic wages operating, one in respect of areas north of the 20th parallel of South Latitude, generally referred to as the 'Darwin' rate, and the other in respect of areas south of that parallel and extending down to the 26th parallel (the 'Port Augusta' rate). The basic wage rates payable as from the beginning of the first pay-period commencing on or after 19 June 1964 were: 'Darwin' rate, adult males £16 7s. (\$32.70), adult females £12 5s. (\$24.50); 'Port Augusta' rate, adult males £15 14s. (\$31.40), adult females £11 15s. 6d. (\$23.55). In addition to these rates, special loadings of 10s. (\$1) to the 'Darwin' and 7s. (70c) to the 'Port Augusta' adult male basic wages have been provided in a number of awards.

In the Australian Capital Territory the rates payable as from the beginning of the first pay-period commencing on or after 19 June 1964 were £15 10s. (\$31.00) for adult males and £11 12s. 6d. (\$23.25) for adult females.

Further details of basic wage rates in the Northern Territory and the Australian Capital Territory may be found in *Labour Report* No. 51, (pages 131-5 and in Section IX of the Appendix).

Basic wage rates for females

Labour Report No. 51, page 130, contains an account of the fixation of minimum rates and basic wages for adult females by the Commonwealth Court of Conciliation and Arbitration. At the end of the 1949-50 Basic Wage Inquiry the Commonwealth Court of Conciliation and Arbitration, by a majority decision, fixed the basic weekly wage for adult females at 75 per cent of the corresponding male rate from the beginning of the first pay-period commencing in December 1950. This percentage has continued to be prescribed in subsequent inquiries.

State basic wages—New South Wales

The first determination under the New South Wales Industrial Arbitration Act of a standard 'living' wage for adult male employees was made on 16 February 1914, when the Court of Industrial Arbitration fixed the living wage at £2 8s. (\$4.80) a week for adult males in the metropolitan area. A Board of Trade, established in 1918, with power to determine the 'living' wage for adult male and female employees in the State, made numerous declarations from 1918 to 1925, but ceased to function after the Industrial Arbitration (Amendment) Act, 1926 transferred its powers, as from 15 April 1926, to the Industrial Commission of New South Wales.

The adult male rate was determined on the family unit of a man, wife and two children from 1914 to 1925; a man and wife only in 1927, with family allowances for dependent children; and a man, wife and one child in 1929, with family allowances for other dependent children. However, with the adoption in 1937 of the Commonwealth basic wage, the identification of a specified family unit with the basic wage disappeared.

A State scheme of supplementing wages by child endowment became operative in New South Wales from July 1927, and continued until superseded by the Commonwealth Government scheme in July 1941. A brief account of the main features of the New South Wales system was given in Year Book No. 37, pages 485-6.

From 1937 to October 1955 the State basic wage for Sydney was the same as the Commonwealth basic wage for Sydney. Beginning from the first pay-period in November 1955, by amendment to the Industrial Arbitration Act, the basic wage was automatically adjusted each quarter in accordance with movements in retail price index numbers. (Automatic adjustments to Commonwealth basic wages were discontinued in September 1953—see page 365.) In October 1964 the Act was amended to delete provision for automatic adjustment to the State basic wage, and to provide that the Commonwealth basic wage for Sydney should in future apply in State awards and industrial agreements, to operate from the beginning of the first pay-period which commenced on or after 19 June 1964.

The Industrial Arbitration (Female Rates) Amendment Act, 1958 defined the basic wage for adult females as being 75 per cent of the adult male rate. It also provided that by January 1963 for male and female employees performing work of the same or like nature and of equal value the same basic wage and secondary wage might be prescribed by the Industrial Commission or a Conciliation Committee.

A table showing State basic wage rates for Sydney for adult males and adult females from 1914 to 1964 was published in the Appendix to *Labour Report* No. 51, 1964. Current rates are published in the monthly bulletin *Wage Rates and Earnings*. The rates payable from 19 June 1964 were £15 15s. (\$31.50) for adult males and £11 16s. (\$23.60) for adult females. For further particulars of the history of State basic wages see earlier issues of the Year Book or *Labour Report*.

Victoria

There is no provision in Victorian industrial legislation for the declaration of a State basic wage. Wages Boards constituted for each industry group or calling from representatives of employers and employees, with an independent chairman, determine the minimum rate of wage to be paid in that industry or calling. In general these Boards have adopted a basic wage in determining the rate of wage to be paid.

Wages Boards in the past have generally adopted Commonwealth basic wage rates. In 1934 Wages Boards were given discretionary power to include in their determinations appropriate provisions of relevant Commonwealth Awards; in 1937 Wages Boards were compelled to adopt such provisions of Commonwealth Awards. In 1937 Wages Boards were also given power to adjust wage rates, 'with the variation from time to time of the cost of living as indicated by such retail price index numbers published by the Commonwealth Statistician as the Wages Board considers appropriate'. The Wages Boards thus adopted the basic wages declared by the Commonwealth Court of Conciliation and Arbitration and followed that Court's system of adjusting the basic wage in accordance with variations in retail price index numbers.

After the Commonwealth Court of Conciliation and Arbitration discontinued the system of automatic adjustment of the Commonwealth basic wage in September 1953, a number of Wages Boards met in November 1953, and deleted references to these adjustments. However, an amendment to the Factories and Shops Act in November 1953 required Wages Boards to provide for the automatic adjustment of wage rates in accordance with variations in retail price index numbers.

In October 1956 an amendment to the Labour and Industry Act (which had superseded the Factories and Shops Act in 1954) deleted the automatic adjustment provision and directed Wages Boards in determining wage rates to take into consideration relevant awards of, or agreements certified by, the Commonwealth Conciliation and Arbitration Commission. The last automatic quarterly adjustment of the basic wage was payable as from the beginning of the first pay-period in August 1956. Following the judgment of the Commonwealth Conciliation

and Arbitration Commission in the 1959 Basic Wage Inquiry, Wages Boards met in June and July 1959, and varied their determinations by incorporating the new Commonwealth rates. Since then the increases in basic wage rates granted by the Commonwealth Conciliation and Arbitration Commission have been adopted by Wages Boards. The rates for Melbourne, payable from 19 June 1964, were £15 7s. (\$30.70) a week for adult males and £11 10s. (\$23.00) for adult females.

A table showing, for the period November 1953 to June 1964, the basic wage rates for adult males and females adopted by most Wages Boards was published in the Appendix to *Labour Report* No. 51, 1964. Current rates are published in the monthly bulletin *Wage Rates and Earnings*.

Queensland

The first formal declaration of a basic wage, £4 5s. (\$8.50) for adult males, by an industrial tribunal in Queensland operated from 1 March 1921. Prior to this declaration the rate of £3 17s. (\$7.70) a week for adult males had been generally recognized in awards as the 'basic' or 'living' wage.

'The Industrial Conciliation and Arbitration Act of 1929' established an Industrial Court and provided that the Court could make declarations as to the basic wage and standard hours. This Act as subsequently amended was repealed by 'The Industrial Conciliation and Arbitration Act of 1961', which established, in addition to the Industrial Court, an Industrial Conciliation and Arbitration Commission. The Act provides that any basic wage declared must at least maintain an employee, his wife and family of three children in a fair and average standard of comfort.

The amendment to the Act in 1961 provided that the full bench of the Commission, consisting of not less than three Commissioners, might make declarations as to the basic wage and standard hours of work. The Act also provided that all persons interested must be given an opportunity to be heard before any general declaration as to the basic wage could be made.

Following an inquiry, the Commission, in a decision in May 1961, increased the adult male basic wage by 4s. (40c) a week, which was approximately the amount of the increase indicated by the Consumer Price Index for March quarter 1961. In November 1961 the Commission refused an application by employer organizations for a declaration of a general ruling that 'in future the basic wage for males and/or females shall not be reviewed merely by reason of any change in the Consumer Price Index at intervals of less than twelve months'.

The Commission in December 1962 rejected an application by unions for increases of £1 4s. (\$2.40) in the adult male basic wage and 18s. (\$1.80) in the adult female basic wage.

In 1963 the Commission, after an inquiry, increased the basic wage by 2s. (20c) a week for adult males and by 1s. 6d. (15c) a week for adult females from 6 May 1963. Following hearing of four applications by unions to alter the basic wage, the Commission in 1964 unanimously increased the basic wage by 14s. (\$1.40) to £15 (\$30) a week for adult males. The increase took effect on and from 13 July 1964.

In a declaration on 23 September 1964 the Commission after an inquiry refused to increase the basic wage, despite movement in the Consumer Price Index for the June quarter 1964 which would have justified an increase of 2s. (20c), on grounds that such an increase would constitute a very ineffective addition to the wages of employees.

The Commission in December 1964 granted basic wage increases of 6s. (60c) and 4s. 6d. (45c) a week for adult males and adult females respectively which had been claimed by unions. Commenting on employer associations' claims, the Commission stated that, although the Commonwealth basic wage determined the State basic wage in all States except Queensland and Western Australia, the Commission had never fixed the State basic wage only in relation to the basic wage in other States or the Commonwealth basic wage, and could therefore see no reason why a decision should be made at this time to withhold a hearing for review pending the review of the Commonwealth basic wage.

Trade unions applied in January 1965 for a further increase in the basic wage consequent upon the upward movement in the Consumer Price Index since the last declaration. Following the hearing of unions' claims, the Commission increased the adult male wage by 3s. (30c) a week and the adult female wage by 2s. 6d. (25c) a week, effective as from 29 March 1965. In its judgment the Commission stated that it had been decided as a matter of policy that in the future it did not propose to deal with an application to vary the basic wage solely because of a change in the Consumer Price Index unless such a change warranted an alteration of 4s. (40c) or more in the basic wage for adult males.

In July 1965 trade unions applied to the Commission to vary the basic wage on the grounds that recent rises in the Consumer Price Index warranted an increase of more than 4s. (40c) a week in the basic wage. In its judgment of 2 September 1965 a majority of the Commission rejected the unions claim for 6s. (60c) per week increase, but granted an increase of 5s. (50c) per week, effective from 20 September 1965. As a matter of policy the Commission further decided not to review the basic wage again before 1 July 1966.

The rates payable in the Southern Division (Eastern District) from 20 September 1965 were £15 14s. (\$31.40) for adult males and £11 15s. 6d. (\$23.55) for adult females. In addition to the basic wage for the Southern Division (Eastern District), which includes Brisbane, adult males in other areas receive district allowances. As from 2 February 1959 the allowances have been: Southern Division (Western District) 10s. 6d. (\$1.05), Mackay Division 9s. (90c), Northern Division (Eastern District) 10s. 6d. (\$1.05), Northern Division (Western District) £1 12s. 6d. (\$3.25). The allowances for adult females are not less than 75 per cent of those for adult males. In the Appendix to *Labour Report* No. 51 a table was published showing adult male and adult female basic wage rates payable in the Southern Division (Eastern District) from 1 March 1921 to 20 September 1965. Current rates are published in the monthly bulletin *Wage Rates and Earnings*.

South Australia

The Industrial Code, 1920-1965 provides that the Board of Industry shall after public inquiry declare the 'living wages' to be paid to adult male and adult female employees. The Board has power also to fix different rates to be paid in defined areas. The family unit was not specifically defined in the Code, but the South Australian Industrial Court in 1920 decided that the average employee in respect of whom the living wage was to be declared was a man with a wife and three children. However, the concept of a family unit disappeared with the adoption of basic wage rates declared by the Commonwealth Court of Conciliation and Arbitration (*see below*). The first declaration by the Board of Industry became operative from 4 August 1921 when the living wage for adult male employees in the metropolitan area was determined at £3 19s. 6d. (\$7.95) a week.

Following the 'interim' increase in the 'needs' basic wage of the Commonwealth Court of Conciliation and Arbitration, announced on 13 December 1946, the South Australian Government made a provision in the Economic Stability Act, 1946 for the declaration by the Governor of a living wage based on the Commonwealth basic wage for Adelaide. This action was taken because the Board of Industry had made a determination on 5 September 1946, and under the Industrial Code was unable to make a further determination for six months.

The Industrial Code Amendment Act, 1949 made provision for the quarterly adjustment of the living wage in accordance with the variations in the Commonwealth basic wage for Adelaide. In effect, this made the State living wage and the Commonwealth basic wage for adult males equal from the beginning of the first pay-period commencing in February 1950. The prescribed adjustment to the female living wage was seven-twelfths of that made to the Commonwealth male basic wage. The Board of Industry retained power to amend the living wage, but any new living wage was to be adjusted quarterly as above.

Following the decision of the Commonwealth Court of Conciliation and Arbitration in the 1949-50 Basic Wage Inquiry, the South Australian Industrial Code was amended to provide for declarations of the living wage by proclamations to prevent unjustifiable differences between the State and Commonwealth rates of wage. By proclamation dated 30 November 1950 the South Australian living wage in the metropolitan area was made identical with the December 1950 rates fixed by the Commonwealth Court of Conciliation and Arbitration for the metropolitan area of South Australia. The female basic wage, which had been approximately 55 per cent of the male basic wage, was increased to 75 per cent of the corresponding male rate.

When the Commonwealth Court of Conciliation and Arbitration discontinued quarterly adjustments to Commonwealth basic wages in September 1953, the South Australian living wage also ceased to be varied quarterly, and since that time it has remained the same as the Commonwealth basic wage for Adelaide. Following the Commonwealth basic wage inquiries in 1956 and subsequent years, increases were made to the South Australian living wages by proclamation. The rates operative from 22 June 1964 were \$15 3s. (\$30.30) for adult males and \$11 7s. (\$22.70) for adult females.

A table showing adult male and adult female basic wage rates for the whole State (with the exception of Whyalla and nearby area) from 1921 to June 1964 will be found in Section X of the Appendix to *Labour Report* No. 51. Current rates are published in the monthly bulletin *Wage Rates and Earnings*.

Western Australia

Prior to the amendment made in 1963, the *Industrial Arbitration Act*, 1912-1961 provided that the Court of Arbitration could determine and declare a basic wage at any time on its own motion and must do so when requested by a majority of industrial unions or by the Western Australian Employers' Federation, with the limitation that no new determinations should be made within twelve months of the previous inquiry.

The term 'basic wage' was defined in the Act as 'a wage which the Court considers to be just and reasonable for the average worker to whom it applies'. In determining what was just and reasonable, the Court had to take into account not only the 'needs of an average worker', but also

the 'economic capacity of industry' and any other matters it deemed relevant. The Act provided that the Court of Arbitration (or the Commission since 1964) could make adjustments to the basic wage each quarter, if the statement supplied by the State Government Statistician showing retail price index numbers and monetary equivalents in terms of the State basic wages indicated that there has been a variation of 1s. (10c) or more a week compared with the previous quarter. These adjustments generally apply from the dates of declaration.

The first declaration of the basic wage by the Court of Arbitration, after the authority to fix one was vested in the Court in 1925, operated from 1 July 1926. The family unit was not specifically defined in the Act, but it has been the practice of the Court to take as a basis for its calculations a man, his wife and two dependent children. The principal inquiries into the basic wage have been those of 1938, 1947, 1950, 1951 and 1964. For details of the inquiries 1937 to 1950 see earlier issues of the Year Book.

In December 1951 the basic wage for adult females became 65 per cent of the corresponding male rate. In January 1960 this proportion was increased to 75 per cent. In each case the margins for females were reduced or deleted to offset the increase in the female basic wage.

Amendments to the Industrial Arbitration Act passed in 1963 became effective on 1 February 1964. The Act provided that the fixation and adjustment of the basic wage would now be dealt with by the Commission in Court Session (three Commissioners) instead of the former Court of Arbitration. In April 1964 the Commission in exercising its discretionary powers, unanimously increased the basic wage for adult males by 2s. 8d. (27c) a week for the metropolitan area and the rest of the South-West land division and 2s. 7d. (26c) a week for the Goldfields area and all other parts of the State.

The Commission on 22 July 1964 began a General Inquiry following union submissions for an increase of £2 12s. (\$5.20) in the basic wage for adult males. On 22 September the Commission announced its decision that the basic wage for the whole of the State would be £15 8s. (\$30.80) for adult males, with appropriate rates for females, juniors and apprentices. This decision abolished the differential rates applying to different areas of the State which had operated since 1931. Subsequently the Commission reduced the industry allowance in the goldmining industry awards from 30s. (\$3) to 22s. 6d. (\$2.25) a week. Further increases in the State basic wage were made in October 1964, April 1965, July 1965, November 1965 and January 1966, following the Commission's examination of movements in the Consumer Price Index.

The rates payable in the metropolitan area as from 25 January 1966 were £16 3s. 9d. (\$32.38) for adult males and £12 2s. 10d. (\$24.28) for adult females. A table showing the Western Australian State basic wage for the Perth Metropolitan Area, from 1926 to 16 November 1965, will be found in Section X of the Appendix to *Labour Report* No. 51. Current rates are published in the monthly bulletin *Wage Rates and Earnings*.

Tasmania

A State basic wage is not declared in Tasmania. Under the *Wages Board Act* 1920 as amended (to 1964) Wages Boards are constituted for a number of industries from representatives of employers and employees, with an independent chairman (who is common to all Wages Boards), with power to determine the minimum rates of wage payable in each industry. Until February 1956 these Boards generally adopted the basic wages of the Commonwealth Court of Conciliation and Arbitration in determining the rates of wage to be paid.

Wages Boards have power to adjust their wage rates in accordance with variations in the cost of living as indicated by retail price index numbers published by the Commonwealth Statistician. When the Commonwealth Court discontinued the system of automatic adjustments of the basic wage in September 1953, Wages Boards met to consider this matter. By early December 1953 all Wages Boards had met and deleted the automatic adjustment clause from determinations and cancelled the adjustment increases payable from November 1953.

Automatic quarterly adjustments in accordance with movements in retail price index numbers were re-introduced by Wages Boards in February 1956, and continued in May and August 1956.

The majority of Wages Boards suspended automatic quarterly adjustments after the August 1956 adjustment, and basic wage rates remained unchanged until July 1959, when Commonwealth basic wages were adopted. In January 1961 Wages Boards adopted the basic wage for Hobart as the uniform rate applicable throughout the State. Following the decision of the Commonwealth Conciliation and Arbitration Commission in July 1961 to increase the basic wage, Wages Boards met during July and incorporated the new Commonwealth rates in their determinations. During 1962 a number of Wages Boards met and varied their determinations by making provision for the automatic adjustment of the basic wage to conform to any change in the basic wage determined from time to time in awards of the Commonwealth Conciliation and Arbitration Commission. In June 1964, following the increase of 20s. (\$2) in the Commonwealth basic wage for adult males, the rates became £15 14s. (\$31.40) and £11 15s. 6d. (\$23.55) for adult males and adult females respectively.

A table was published in the Appendix to *Labour Report* No. 51, 1964 showing Hobart basic wage rates for adult males and adult females generally adopted by Wages Boards in the period February 1956 to June 1964. Current rates are published in the monthly bulletin *Wage Rates and Earnings*.

State basic wage rates

The 'basic' wage rates of State industrial tribunals operative in January 1966 are summarized in the following table. State basic wage rates for adult males and adult females for a long period of years are shown in the Appendix to *Labour Report* No. 51, 1964. Current figures are published in the monthly bulletin *Wage Rates and Earnings*.

STATE BASIC WAGES: WEEKLY RATES OPERATIVE
JANUARY 1966
(\$)

State and locality	Date of operation	Males	Females
New South Wales	19.6.64	31.50	23.60
Victoria	June/July 1964	30.70	23.00
Queensland—			
Southern Division—			
Eastern District, including			
Brisbane	20.9.65	31.40	23.55
Western District	20.9.65	32.45	24.35
Mackay Division	20.9.65	32.30	24.23
Northern Division—			
Eastern District	20.9.65	32.45	24.35
Western District	20.9.65	34.65	26.00
South Australia	22.6.64	30.30	22.70
Western Australia(a)—			
Metropolitan Area	} 25.1.66	32.38	24.28
S.W. Land Division			
Goldfields and other areas			
Tasmania	19.6.64	31.40	23.55

(a) Differential rates abolished as from 22 September 1964.

Wage margins

Wage margins have been defined as 'minimum amounts awarded above the basic wage to particular classifications of employees for the features attaching to their work which justify payments above the basic wage, whether those features are the skill or experience required for the performance of that work, its particularly laborious nature, or the disabilities attached to its performance'.

Marginal rates of wage are determined by Commonwealth and State industrial tribunals. In the Commonwealth jurisdiction prior to 1954 the Commonwealth Court of Conciliation and Arbitration had not made any general determination in respect of wage margins, but general principles of marginal rate fixation had been enunciated by the Court in the Engineers Case of 1924, the Merchant Service Guild Case in 1942 and the Printing Trades Case of 1947. Major determinations affecting margins were made in 1954, 1959, 1963 and 1965. The decisions of the Commonwealth Court and later the Commonwealth Conciliation and Arbitration Commission have generally been followed by State industrial tribunals in the determination of margins in State awards.

A summary of the judgments in the 1954, 1959 and 1963 Margins Cases is given in the following paragraphs. A summary of the judgment in the National Wage Cases of 1965 is given on page 374.

Metal Trades Case, 1954

In a judgment delivered on 5 November 1954 the Commonwealth Court of Conciliation and Arbitration made an order re-assessing the marginal structure in the Metal Trades Award by, in general, raising the current amount of the margin to two and a half times the amount of the margin that had been current in 1937. However, in cases in which the result of that calculation produced an amount less than the existing margin, the existing margin was to remain

unaltered. In effect, this decision increased the margins of a fitter from 52s. (\$5.20) a week to 75s. (\$7.50) a week, increased similarly margins of other skilled occupations, and made no increase in margins of what may generally be described as the unskilled or only slightly skilled occupations under the Metal Trades Award. The new rates operated from the beginning of the first pay-period commencing on or after 13 December 1954.

At the end of its judgment the Court stated that, while its decision in this case related immediately to one particular industry, it was expected to afford general guidance to all authorities operating under the Conciliation and Arbitration Act, or under other legislation which provided for tribunals having power to make references, or being subject to appeal, to the Court, where the wage or salary may properly be regarded as containing a margin. The Court added observations for the guidance of these and of other tribunals 'which may regard decisions of this Court as of persuasive authority'. Further details were published in *Labour Report* No. 46, 1958, pages 101-8.

Margins Cases, 1959

On 25 August 1959 the Commonwealth Conciliation and Arbitration Commission began considering a number of applications for changes in margins referred to it from the appropriate Commissioner. Applications had been made by various employee organizations for increased margins in Parts I. and II. of the Metal Trades Award, Part II. of the Aircraft Industry Award, the Bank Officials' Award, and the Gold and Metalliferous Mining Award. An application by employers sought to reduce marginal rates in the Metal Trades Award. The Commission decided to hear all these matters together, permitting the applicant unions in respect of Part II. of the Metal Trades and Aircraft Industry Awards, and the Bank Officials' Award to ask first for an interim increase. A summary of the principal decisions of the Commission is given in the following paragraphs. Further details, including extracts from the judgment, were published in *Year Book* No. 47, pages 455-9.

Metal Trades Award, Part I. The employee organizations claimed an increase in the margin for the fitter, as set out in the Metal Trades Award, 1952 (i.e. the award as it existed prior to the Metal Trades Case, 1954—see above), from 52s. (\$5.20) to 134s. (\$13.40) a week and an increase of 157 per cent in the margins for other classifications. The employers counter-claimed for a reduction in margins of 15s. (\$1.50) a week.

The Commonwealth Government intervened, and not only submitted statistical material and an analysis of the economic situation, but also assisted the Commission with an exposition of various factors proper to be taken into account in the fixation of margins. In particular, the Commonwealth emphasized the desirability of flexibility in the workings of the arbitration system.

In its judgment, delivered on 27 November 1959, the Commission rejected the employers' application to reduce margins, and made an order re-assessing the marginal structure in the Metal Trades Award by increasing the existing margins by 28 per cent, the amount of the increase being taken to the nearest 6d. (5c). The new margins applied from the beginning of the first full pay-period commencing in December 1959. The effect of this decision was to increase the margin of the fitter from 75s. (\$7.50) to 96s. (\$9.60) a week and that for the process worker from 22s. (\$2.20) to 28s. (\$2.80).

Other awards. The Commission also granted margin increases to workers covered by the Gold and Metalliferous Mining Award, the Metal Trades Award, Part II., the Aircraft Industry Award, Part II., and the Bank Officials' Award. Details of these increases were published in previous issues of the *Year Book*. Other awards of the Commission were subsequently amended in accordance with the decision in the Metal Trades Award, Part I.

Margins Case, 1963

Following the conclusion of the 1963 Basic Wage Case, two benches of the Commonwealth Conciliation and Arbitration Commission on 5 February 1963 commenced to hear applications by metal trades unions for increased margins and for three weeks annual leave (see page 383). The two benches sat jointly for the convenience of the parties involved and were constituted as follows: margins case—Kirby C.J. (President), Moore and Ashburner JJ and Commissioner Apsey; three weeks' annual leave case—Kirby C.J. (President), Moore J. (Deputy President) and Commissioner Apsey.

The unions' claim on margins was that the Commission restore, on an assessed basic wage, the relativities within the Metal Trades Award established in 1947 by what is known as the second Mooney formula. Taking £15 7s. (\$30.70) as the assessed basic wage (calculated as the 1947 basic wage adjusted to price changes since 1947) and applying the percentage 48.6, which the fitter's margin was of the 1947 basic wage, the union arrived at a new marginal rate of £7 9s.

(\$14.90) for a fitter, an increase of £2 13s. (\$5.30) on the current margin. This claim of £7 9s. (\$14.90) was 2.86 times the 1947 fitter's margin, and hence the unions sought to have all 1947 margins multiplied by 2.86. This claim was opposed by the employers, who asked that any consideration of marginal increases be deferred for an unspecified time.

The Commonwealth Government intervened in the public interest and made submissions as to the approach to be adopted to marginal fixation generally and to marginal fixation in the metal trades industry, as well as supplying information to the Commission about the economic situation and the Government's assessment of it. The Commonwealth Government neither opposed nor supported the claim. The South Australian Government neither opposed nor supported the claim for marginal increases, but did oppose any change in present relativities. The Queensland Government neither opposed nor supported the application for increases in margins, but submitted certain information regarding possible effects in Queensland. The Commission declined to allow submissions aimed at showing what might happen in State awards if State industrial tribunals followed their past practices with respect to the Commission's decisions.

The Commission concluded its consideration of the indicators with these words:

'... our own investigation of the economy [is] that both from a long term point of view and also from a short term point of view the prospects for the economy may be reasonably regarded with optimism. On a consideration of the whole of the indicators, we conclude that national capacity has increased and that it is likely to continue to increase in the foreseeable future. In these circumstances we are confident that the economy is able to sustain the increase of ten per cent in margins in this award which we consider is otherwise justified.'

At the request of the parties the Commission took the unusual course of making a pronouncement early in the proceedings as to the extent to which the decision in the metal trades case should be used in other industries. The Commission re-affirmed what was said in the 1959 metal trades judgment that the decision would relate to the Metal Trades Award only, although they realized that the margin of the fitter had been used as a standard for other awards. In the present case the Commission stated it was not intended that the decision should be applied automatically outside the metal trades.

The order of the Commission was that the margins for adult males in the Metal Trades Award be increased by ten per cent, the increase to be calculated to the nearest shilling (10c) and to operate from the beginning of the first pay-period to commence on and after 22 April 1963.

National Wage Cases of 1965

The effect on margins of the judgment of the Commission in these cases was as follows. With effect from the first pay-period commencing on or after 1 July 1965 each margin in the Metal Trades Award was increased by an amount equal to $1\frac{1}{2}$ per cent of the sum of the six Capital Cities basic wage and that margin. For further details *see* page 374.

Annual leave

The judgment delivered by the Commonwealth Court of Conciliation and Arbitration in the Commercial Printing Case of 1936, granting one week's annual leave with full pay to employees in the industry, has usually been regarded as the first statement in the Commonwealth jurisdiction of the principles involved in deciding whether or not annual leave should be awarded. Over a period of time annual leave was introduced industry by industry when and if the Judge responsible for the industry considered it proper.

In 1945 the question of annual leave was before the Court, and the Court in its judgment set out what it considered to be the principles to be applied in all applications for an extension of the annual leave period to fourteen days. Alteration of particular awards was left to the discretion of the single judge who heard the application.

Further inquiries into annual leave were conducted in 1960, 1962 and 1963, and the decisions in these inquiries are set out in the following paragraphs. Annual leave for employees under the jurisdiction of State awards, etc. is subject to separate determination, and a brief summary is given on pages 383-4. At present the majority of employees in Australia receive three weeks' annual leave at least.

Commonwealth

Since 1960, three inquiries have been held following union claims to increase paid annual leave from two to three weeks in Commonwealth Awards. A report on these cases is given on page 373.

Three Weeks' Annual Leave Inquiry, 1960. In its judgment in this inquiry the Commonwealth Conciliation and Arbitration Commission stated that it had decided to reject the unions' application for three weeks' annual leave. Part of the conclusion of the Commission stated:

'We accordingly dismiss this application because of the present economic situation. In doing so we would again repeat what we have said earlier in this judgment that we do not consider that employees under Federal awards have yet achieved all the leisure which they should achieve. We have done no more than decide that the present is not an appropriate time in which to award an extra week's paid leave.'

For further particulars see Year Book No. 49, pages 511-513.

Three Weeks' Annual Leave Inquiry, 1962. In its judgment in this inquiry the Commonwealth Conciliation and Arbitration Commission made the following announcement:

'We have given careful consideration to the submissions which have been made to us in this case. The applicant unions have asked that we consider the claim a general one, the result to be applied to Federal awards generally. This must result in greater caution on our part in deciding whether or not the application should succeed. Our present intention is that an increase to three weeks' annual leave generally in secondary industry, subject to special cases, should be granted as soon as we are satisfied that the economy is in a position to cope with the effects of such an increase. However, there are two aspects of the economic arguments about which we are troubled and about which we consider it too early to make any firm decision. These are, firstly, whether our internal economy has sufficiently recovered from the recession of late 1961 and, if so, what is the likely rate of its recovery in the future and, secondly, the effect on Australia of success or failure of the application of the United Kingdom to enter the European Common Market. There have been developments in relation to the latter question since the hearing which both emphasise its importance and the lack of accurate information as to what is going to happen and the short and long term effect on Australia's economy.

'So that we may be able better to assess these matters we have decided to adjourn these proceedings until a date in February or March next which will be announced later when the parties and interveners will be able to make such further submissions on these two matters as they may desire.'

Further details were published in Year Book No. 50, page 496.

Three Weeks' Annual Leave Inquiry, 1963. On 5 February 1963 the Commonwealth Conciliation and Arbitration Commission, constituted by Kirby C.J. (President), Moore J. (Deputy President) and Commissioner Apsey, commenced hearing the application, which had been adjourned from May 1962, to vary the Metal Trades Award to provide three weeks' paid annual leave, instead of two (see above).

The hearing was continued during March and April 1963 jointly with the Metal Trades Margins case hearing (see pages 381-2), and in its judgment on 18 April 1963 the Commission said it would implement its intention of granting three weeks' annual leave generally in secondary industry, subject to special cases. The Commission announced that the Metal Trades Award would be varied to produce the following result: 'A period of 21 consecutive days' leave shall be allowed to employees who have completed twelve months continuous service by or after 30th November 1963.' Provision for proportionate leave for periods of employment of one month and over was made in respect of employment after 1 June 1963. The application of the new standard of annual leave for secondary industry in other Federal awards would be a matter for individual Commissioners upon proper application being made for variations.

In a decision given on 22 October 1963 the Commission, comprising Wright J. (Acting President), Moore J. (Deputy President) and Commissioner Winter, unanimously rejected an application by employers' organizations firstly for permission, at the employers' discretion, to require employees to take their annual leave in two periods of seven and fourteen days respectively, and secondly that the time after accrual within which leave must be taken should be extended to nine months when leave is taken in one period and twelve months when leave is taken in more than one period.

New South Wales

Employees in New South Wales in private industry, other than those covered by Federal awards, were granted three weeks annual leave by an amendment to the Annual Holidays Act passed in 1958. In 1964 the State Government granted its employees four weeks annual leave effective from 1 January 1964. From 29 September 1964 annual holiday pay for employees covered by provisions of the Annual Holidays Act has been calculated on the basis of the employee's current weekly earnings instead of current award rates.

Victoria

Following the decision of the Commonwealth Conciliation and Arbitration Commission in April 1963 (see page 383) individual Wages Boards commenced to alter provisions of their determinations to grant employees an extra week leave. By September 1963 the majority of Boards had included three weeks annual leave in their determinations.

In December 1963 the Industrial Appeals Court upheld an appeal by employees against the determination of the Photographic Goods Board which stated that an employer may direct the workers or group of workers to take their annual leave in two periods of two consecutive weeks and one week respectively.

Queensland

In June 1963 the Full Bench of the Industrial Conciliation and Arbitration Commission granted an extra week's annual leave to employees with twelve months continuous service on or after 30 November 1963. This move implemented a previous decision of the Commission in which it was decided, as a matter of policy, to grant increased leave to persons already enjoying two weeks leave.

The decision applied to day workers and non-continuous shift workers receiving two weeks leave; continuous shift workers receiving three weeks leave; and day workers and shift workers receiving additional leave in lieu of extra payment for working on statutory holidays. The order became effective as from 1 June 1963.

The terms of the decision of the Commonwealth Conciliation and Arbitration Commission, as handed down in April 1963 (see page 383) were to apply to awards of the Industrial Conciliation and Arbitration Commission of Queensland with the exception that, in the State awards, *pro rata* payment for leave not taken at the termination of employment was to be expressed at hours per month. The decision did not apply to employees in primary industry—apart from the sugar industry—or those in western areas. Extra leave for these employees was granted as a result of separate applications.

South Australia

The Full Bench of the South Australian Industrial Court in May 1963 announced an increased standard of annual leave in the State, adopting three weeks as the standard as fixed by the Commonwealth Conciliation and Arbitration Commission (see page 383).

The Court, as a general indication as to its attitude, expressed the view that annual leave should be taken at a time fixed either by agreement or, if this is not possible, at a time fixed by the employer. The leave should be allowed in two parts and one part must be of at least two weeks duration. These, however, were factors which could vary from award to award and their determination would depend on the needs of the particular industry.

Western Australia

Following a general inquiry concerning Annual Leave and Public Holidays the Court of Arbitration in June 1963 adopted three weeks as the new standard for the normal period of annual leave in State awards, with four weeks for seven-day shift workers. The date of operation was the same as that decided by the Commonwealth Conciliation and Arbitration Commission (see page 383). Existing awards and agreements which already provided annual leave in excess of the Court's standard were to be examined separately to ascertain whether special circumstances existed to justify leave greater than the normal standard. The standard number of public holidays was retained at ten a year.

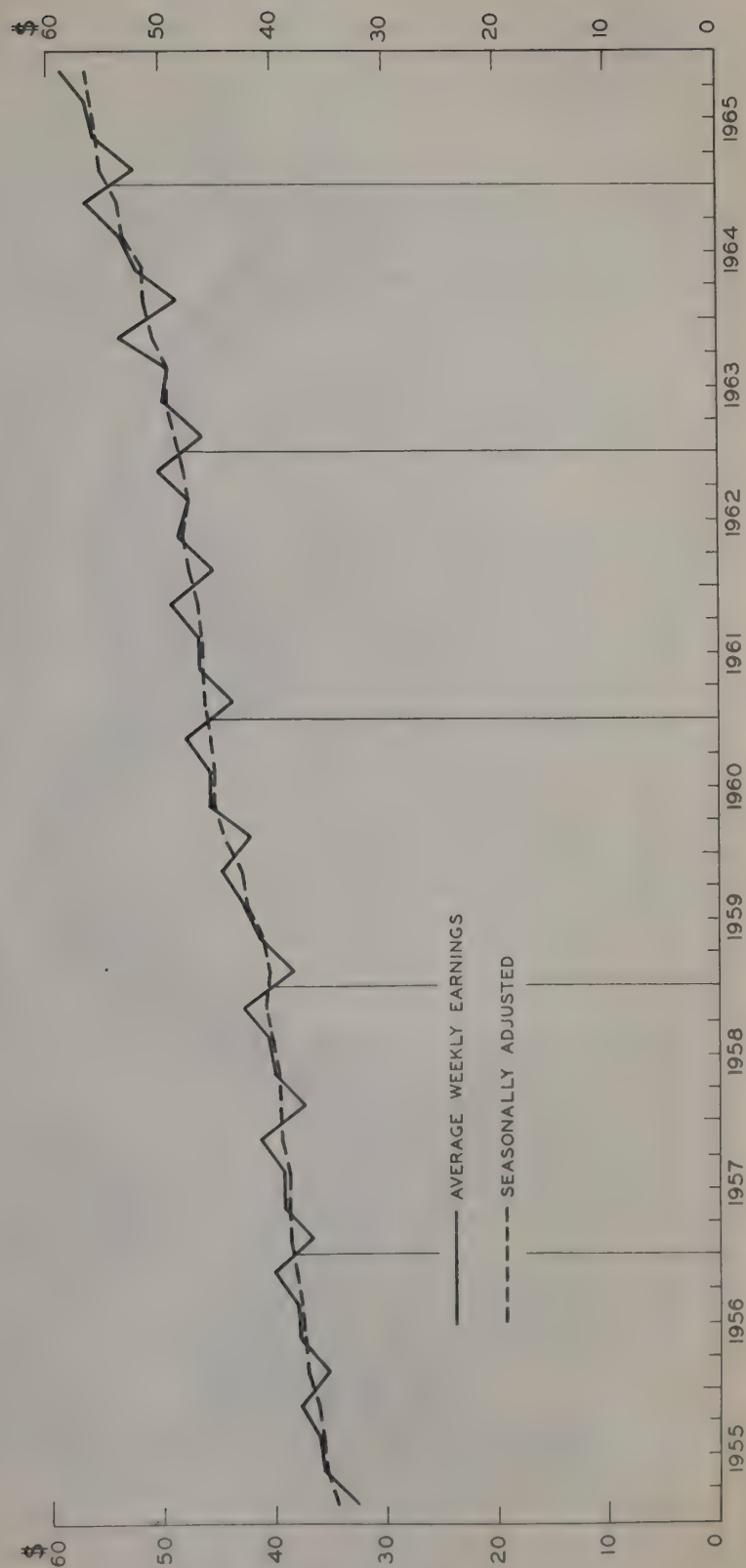
In November 1963 the Court refused an application by employers for the right to split the annual leave into two parts since it decided to follow the decision of most other State tribunals and allow the additional leave in conformity with conditions similar to those prescribed by the Commonwealth Conciliation and Arbitration Commission. The right to split the leave would be allowed by the Court only in exceptional circumstances, unless all the parties concerned agreed to the inclusion of such a provision.

Tasmania

Following an amendment to the Wages Board Act in 1961, Wages Boards were permitted to grant employees up to three weeks paid recreational leave. Between June 1962 and early 1963 determinations of Wages Boards were amended to provide for three weeks annual leave for employees, to operate from 1 January 1963.

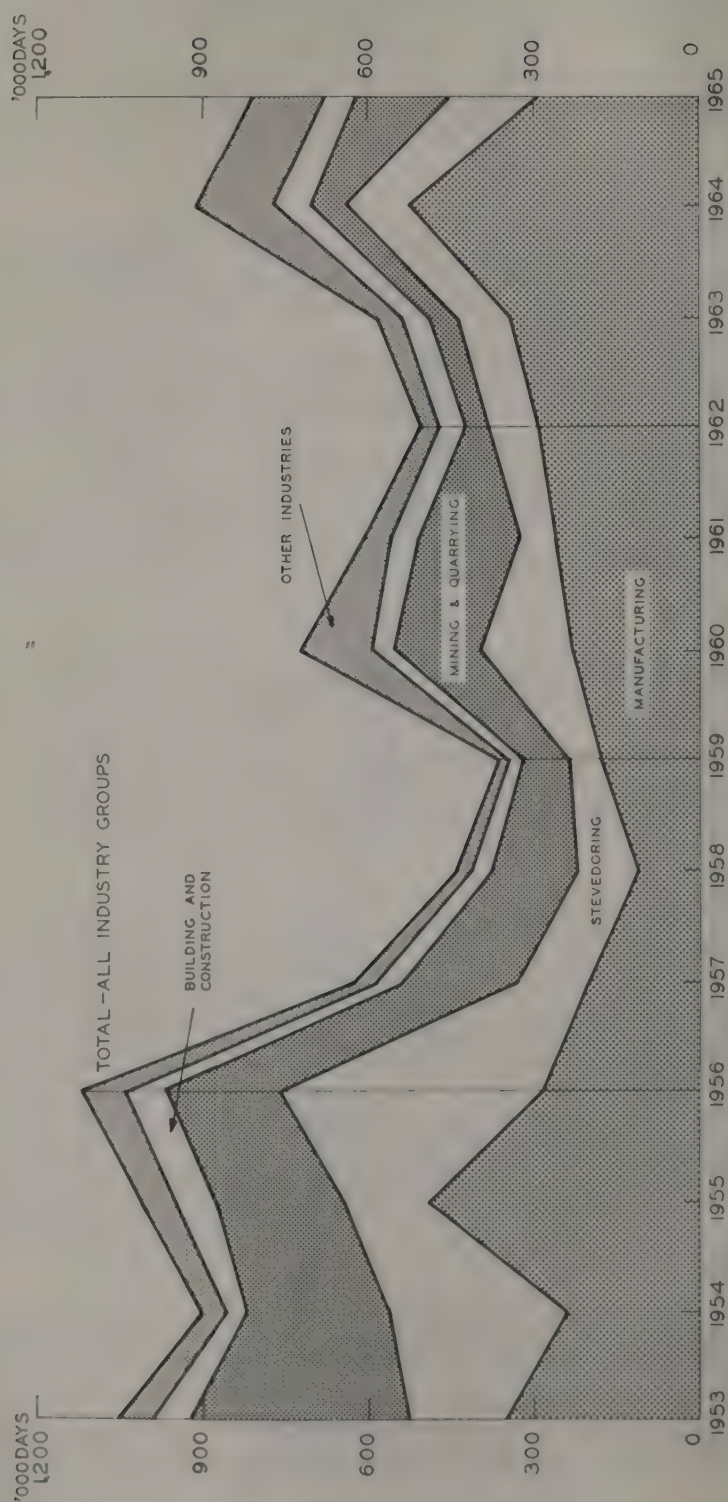
Generally, most Wages Boards adopted provisions to enable leave to be taken in one consecutive period within six months from the end of the preceding year of employment or, if the employer and employee agree, in two separate periods, the lesser of which shall be of not less than seven consecutive days.

AVERAGE WEEKLY EARNINGS PER EMPLOYED MALE UNIT AUSTRALIA, 1955 TO 1965



INDUSTRIAL DISPUTES, AUSTRALIA, 1953 TO 1965

WORKING DAYS LOST - INDUSTRY GROUPS



Long service leave

Paid long service leave, i.e. leave granted to workers who remain with the one employer over an extended period of time, has been included in the provisions of industrial legislation in the several States and a brief summary is given in the following paragraphs. The position in regard to Commonwealth award employees is also summarized. In all cases the transfer of ownership of a business does not constitute a break in continuity of service with the same employer.

Commonwealth

Until May 1964 the Commonwealth Conciliation and Arbitration Commission had not included provision for long service leave in its awards, and had refrained from determining disputes relating to this subject except in the case of the Northern Territory and the Australian Capital Territory (*see below*). Consequently until then the provisions of the various State Acts relating to long service leave applied to workers covered by awards of the Commonwealth. The applicability of long service leave provisions under State law to workers under Commonwealth awards had been tested before the High Court and the Privy Council, and such provisions had been held to be valid.

The Commission's position was set out in its decision, issued on 16 September 1959, regarding disputes on the inclusion, in the Graphic Arts (Interim) Award, 1957, of provisions for long service leave. It stated that it should refrain until further order from determining the disputes so far as they concerned long service leave and that if in future the Commission decided that long service leave on a national basis was desirable, it was open to proceed to the making of an award on the matter.

Following the hearing of claims for long service leave provisions by employers in the graphic arts and metal trades industries in August 1963, the Full Bench of the Commonwealth Conciliation and Arbitration Commission on 11 May 1964 announced its decision that long service leave entitlement would be calculated on the basis of thirteen weeks for twenty years of unbroken employment, in respect of employment before 11 May 1964 (or, in New South Wales, 1 April 1963), and at the rate of thirteen weeks for fifteen years in respect of service after 11 May 1964 (or, in New South Wales, 1 April 1963). After further periods of ten years, employees would be entitled to an additional *pro rata* period of leave calculated on the same basis. Those employees who completed an unbroken contract of employment of ten years but less than fifteen years, and whose employment was terminated by death or by the employer for any cause other than serious and wilful misconduct, or by the employee on account of illness, incapacity or domestic or other pressing necessity, would be entitled to *pro rata* payment. The rate of payment while on leave would be current award rates which would be subject to basic wage changes and marginal adjustments which occurred during the leave period.

Following applications by employers in the metal trades and printing industries, the Full Bench of the Commission in a judgment delivered on 23 December 1964 extended the provisions of the awards to cover non-unionist employees. The decision rejected the unions' argument that the Commission had no jurisdiction to make long service leave awards binding in respect of non-unionists. The Commission, in a separate decision, varied the provisions of the awards so that an employer would not be required to grant an employee long service leave until the entitlement equalled thirteen weeks for the first period of entitlement and eight and two-thirds weeks in respect of any subsequent period of entitlement. These variations would be effective on and from 1 December 1964.

Australian Territories. Long service leave codes for employees covered by Northern Territory and Australian Capital Territory awards were originally prescribed on 4 December 1961 by the Commonwealth Conciliation and Arbitration Commission in Presidential Session. The Commission decided that employees should be granted three months long service leave after twenty years service with one employer, even if part of this service was outside the Territory. In addition, the Australian Capital Territory code prescribed that employees presently employed might 'go back for a period of 25 years in regard to the calculation of their present or future entitlement of long service leave'. In December 1964 the Commission amended the majority of awards covering employees in the Northern Territory and the Australian Capital Territory by granting long service leave on the basis of thirteen weeks after fifteen years service.

Stevedoring Industry. The *Stevedoring Industry Act* 1962, which came into force on 19 November 1962, amended the *Stevedoring Industry Act* 1956-1961 by extending the eligibility and qualifying periods of the long service leave provisions of the Act. No changes were made to the entitlement for long service leave, which remained at thirteen weeks after twenty years qualifying service and six and a half weeks for each subsequent ten years qualifying service.

New South Wales

Long service leave was first introduced for the majority of workers by the Industrial Arbitration Act, 1951, which provided such leave for workers under State awards. This Act was replaced by the Long Service Leave Act, 1955, which extended the benefits to any worker within

the State. An amendment to the Act in April 1963 provided for three months long service leave for fifteen years continuous service with the same employer and proportionate amounts on this basis after a minimum of five years service. The Long Service Leave (Metalliferous Mining Industry) Act, 1963 conferred on certain workers in the metalliferous mining industry the right to three months long service leave after ten years service. This Act operated from 1 January 1964.

Victoria

The *Factories and Shops (Long Service Leave) Act* 1953 first provided for long service leave for workers in Victoria, the provisions of this Act being subsequently incorporated in the Labour and Industry Act. Leave provided for was thirteen weeks for twenty years continuous service with the same employer. Contributions by employers to retirement schemes were to be taken into consideration in dealing with exemptions from the Act.

An amendment to the Labour and Industry Act in December 1964 granted employees, from 1 January 1965, thirteen weeks leave after fifteen years continuous service. Workers who terminated their employment after ten years but less than the qualifying fifteen years would be able to obtain a *pro rata* entitlement subject to the existing special conditions of the Act. Following amendment to the Public Service Act in 1964, public servants became entitled to four and a half months leave after fifteen years service instead of six months after twenty years.

Queensland

In 1952 The Industrial Conciliation and Arbitration Acts were amended to include long service leave provisions for employees within the jurisdiction of the Industrial Court, and the Acts were amended again in 1955 to extend these provisions to any employee in respect of whose employment there was not in force an award or industrial agreement under the Act and to seasonal workers in sugar mills and meat works. Leave provided for was thirteen weeks for twenty years continuous service with the same employer.

An amendment to The Industrial Conciliation and Arbitration Acts was passed and assented to in December 1964 granting employees long service leave of thirteen weeks after fifteen years continuous service. The amendment retained *pro rata* leave entitlement after ten years service and operated on and from 11 May 1964.

South Australia

The Long Service Leave Act, passed in 1957, exempts a large number of industrial agreements, with wide industrial coverage, from specifying long service leave for employees. For those covered by the Act leave provided for is seven days in the eighth and in each subsequent year of continuous service. Contributions by employers to retirement schemes can be taken into consideration in dealing with exemptions under the Act.

On 24 December 1964 long service leave of thirteen weeks after fifteen years continuous service in respect of employment on and from 11 May 1964 was granted to shop assistants by agreement between employers and employees.

Western Australia

The Long Service Leave Act was passed in 1958, but it did not apply to employees whose conditions of work were regulated under the Western Australian Industrial Arbitration Act. The Court of Arbitration of Western Australia in an order dated 1 April 1958 incorporated in most of the awards and agreements within its jurisdiction provisions similar to those in the Long Service Leave Act. Leave provided for was thirteen weeks for twenty years continuous service with the same employer. Contributions by employers to retirement schemes can be taken into consideration in dealing with exemptions from the Act.

In September 1964 the industrial Commission began to amend the long service leave provisions of its awards and industrial agreements to provide for thirteen weeks leave after fifteen years service on or from 1 October 1964. *Pro rata* entitlement would accrue after ten years service. The *Long Service Leave Amendment Act (No. 2), 1964*, introduced in October 1964, was in the same terms as the amendments made by the Commission to the various awards and agreements.

Tasmania

The Long Service Leave Act, which was passed in 1956, provided for thirteen weeks leave for twenty years continuous service with the same employer. Contributions by employers to retirement schemes could be taken into consideration in dealing with exemptions from the Act. An amendment to the Long Service Leave Act, assented to on 17 December 1964, granted thirteen weeks leave after fifteen years continuous service. The amendment operated on and from 11 May 1964.

INDUSTRIAL DISPUTES

Detailed information regarding industrial disputes involving stoppage of work is given in the *Labour Report*. A table showing statistics of industrial disputes for each year from 1913 is contained in the Appendix to *Labour Report* No. 51, 1964.

Particulars of all disputes in progress during the year are included in the annual figures, whether the dispute commenced in that year or was in progress at the beginning of the year. Consequently, details of 'the number of disputes' and 'workers involved' in disputes which commenced in any year, and were still in progress during the following year, are included in the figures for both years.

The following table gives, for Australia as a whole, particulars of industrial disputes which were in progress during 1965, classified according to industry groups.

INDUSTRIAL DISPUTES(a): INDUSTRY GROUPS, AUSTRALIA, 1965

Industry group	Number	Workers involved			Working days lost	Estimated loss in wages (\$'000)
		Directly	Indirectly (b)	Total		
Agriculture, grazing, etc.	208	35,198	..	35,198	50,993	493.9
Coal mining	7	2,275	1,543	3,818	122,230	1,571.9
Other mining and quarrying	326	76,987	5,485	82,472	122,596	1,129.9
Engineering, metals, vehicles, etc.	5	1,453	715	2,168	7,330	60.4
Textiles, clothing and footwear	119	34,802	6,119	40,921	109,200	992.8
Food, drink and tobacco	1	143	..	143	70	0.7
Sawmilling, furniture, etc.	20	3,028	..	3,028	6,869	67.5
Paper, printing, etc.	83	13,953	363	14,316	50,516	514.9
Other manufacturing	196	29,748	475	30,223	55,964	592.3
Building and construction	25	31,281	64	31,345	53,999	441.4
Railway and tramway services	32	34,004	..	34,004	50,726	470.4
Road and air transport	6	504	..	504	522	5.1
Shipping	271	181,857	..	181,857	155,520	1,591.8
Stevedoring	12	748	..	748	1,212	9.5
Amusement, hotels, personal service, etc.	35	14,253	46	14,299	28,122	255.8
Other industries(c)						
Total	1,346	460,234	14,810	475,044	815,869	8,198.5

(a) Refers only to disputes involving a stoppage of work of 10 man-days or more. (b) Persons thrown out of work at the establishments where the stoppages occurred but not themselves parties to the dispute. (c) Includes communication; Finance and property; Wholesale and retail trade; Public authority (n.e.i.); and Community and business services.

A graph showing, for the years 1953 to 1965, the working days lost as a result of industrial disputes in the main industry groups is shown on plate 31.

The following table gives particulars of the number of industrial disputes in each State and Territory, together with the number of workers involved and the losses in working days and wages caused by disputes which were current during each of the years 1961 to 1965.

INDUSTRIAL DISPUTES(a): STATES AND TERRITORIES, 1961 TO 1965

State or Territory	Year	Number	Workers involved			Working days lost	Estimated loss in wages (\$'000)
			Directly	Indirectly (b)	Total		
New South Wales . . .	1961	529	131,661	5,295	136,956	318,629	2,632.2
	1962	752	195,344	13,623	208,967	303,400	2,571.7
	1963	817	214,643	4,333	218,976	307,440	2,629.5
	1964	828	221,510	7,566	229,076	320,568	2,996.2
	1965	832	244,900	6,156	251,056	367,942	3,479.1
Victoria	1961	91	51,447	1,300	52,747	72,471	609.5
	1962	166	72,525	720	73,245	100,606	837.3
	1963	180	85,757	2,221	87,978	172,963	1,510.2
	1964	206	188,836	1,239	190,075	359,567	3,428.2
	1965	208	118,534	3,264	121,798	214,300	2,061.6
Queensland	1961	123	73,442	4,798	78,240	168,958	1,829.1
	1962	175	33,445	8,321	41,766	75,951	598.8
	1963	160	37,047	7,266	44,313	54,861	468.1
	1964	198	84,951	7,745	92,696	157,571	1,453.3
	1965	186	48,328	5,241	53,569	189,941	2,221.2
South Australia	1961	26	17,012	321	17,333	17,256	133.6
	1962	31	11,748	100	11,848	14,599	118.8
	1963	35	11,938	107	12,045	8,957	81.9
	1964	55	22,851	189	23,040	63,785	585.2
	1965	48	28,323	143	28,466	26,379	253.3
Western Australia . . .	1961	22	9,588	99	9,687	23,233	189.1
	1962	28	8,280	83	8,363	6,300	50.0
	1963	28	42,390	194	42,584	31,969	252.5
	1964	26	6,093	72	6,165	7,148	62.6
	1965	33	12,611	..	12,611	10,020	100.8
Tasmania	1961	14	4,645	16	4,661	4,622	38.1
	1962	18	5,048	78	5,126	3,993	35.1
	1963	11	5,019	..	5,019	2,933	26.8
	1964	8	1,898	..	1,898	1,939	18.0
	1965	17	5,131	..	5,131	3,894	41.4
Northern Territory . .	1961	4	456	..	456	709	8.1
	1962	6	428	..	428	298	2.5
	1963	8	915	..	915	968	9.3
	1964	6	602	..	602	437	4.3
	1965	17	1,742	6	1,748	2,784	35.0
Australian Capital Territory	1961	6	275	2	277	933	7.9
	1962	7	4,005	105	4,110	3,608	29.9
	1963	11	858	20	878	1,477	13.1
	1964	7	2,076	..	2,076	1,343	13.1
	1965	5	665	..	665	609	6.2
Australia	1961	815	288,526	11,831	300,357	606,811	5,447.6
	1962	1,183	330,823	23,030	353,853	508,755	4,244.1
	1963	1,250	398,567	14,141	412,708	581,568	4,991.5
	1964	1,334	528,817	16,811	545,628	911,358	8,560.9
	1965	1,346	460,234	14,810	475,044	815,869	8,198.5

(a) Refers only to disputes involving a stoppage of work of 10 man-days or more. (b) Persons thrown out of work at the establishments where the stoppages occurred but not themselves parties to the dispute.

Duration of disputes

The duration of each industrial dispute involving a loss of work, i.e. the time between the cessation and resumption of work, has been calculated in working days, exclusive of Saturdays, Sundays and holidays, except where the establishment involved carries on a continuous process (e.g. metal smelting and cement manufacture).

The following table shows, for the year 1965, industrial disputes in coal mining, stevedoring and other industries classified according to duration.

INDUSTRIAL DISPUTES(a): DURATION, BY INDUSTRY GROUP, AUSTRALIA, 1965

Duration (working days)	Number	Workers involved(b)		Working days lost		Estimated loss in wages (\$'000)
		Number	Proportion of total (per cent)	Number	Proportion of total (per cent)	
COAL MINING						
1 day and less	132	19,078	54.2	13,940	27.3	135.0
2 days and more than 1 day	45	11,172	31.7	20,408	40.0	202.4
3 days and more than 2 days	19	3,017	8.6	8,385	16.5	78.5
Over 3 days and less than 5 days	9	1,390	4.0	5,471	10.7	52.4
5 days and less than 10 days	3	541	1.5	2,789	5.5	25.6
10 days and less than 20 days . . . . .	..	..	..	..	..	..
20 days and less than 40 days . . . . .	..	..	..	..	..	..
40 days and over . . . . .	..	..	..	..	..	..
<i>Total.</i>	208	35,198	100.0	50,993	100.0	493.9

STEVEDORING

1 day and less	159	133,319	73.3	66,697	42.9	679.4
2 days and more than 1 day	69	40,723	22.4	56,333	36.2	578.0
3 days and more than 2 days	29	3,390	1.9	8,213	5.3	84.0
Over 3 days and less than 5 days	10	747	0.4	2,816	1.8	28.7
5 days and less than 10 days	4	3,678	2.0	21,461	13.8	221.6
10 days and less than 20 days . . . . .	..	..	..	..	..	..
20 days and less than 40 days . . . . .	..	..	..	..	..	..
40 days and over . . . . .	..	..	..	..	..	..
<i>Total.</i>	271	181,857	100.0	155,520	100.0	1,591.8

OTHER INDUSTRIES

1 day and less	395	134,153	52.0	97,115	15.9	898.5
2 days and more than 1 day	176	58,984	22.9	98,547	16.2	885.2
3 days and more than 2 days	107	27,307	10.6	64,215	10.5	578.2
Over 3 days and less than 5 days	83	16,349	6.3	61,603	10.1	576.7
5 days and less than 10 days	78	12,880	5.0	86,360	14.2	843.7
10 days and less than 20 days	24	6,249	2.4	68,532	11.3	674.2
20 days and less than 40 days	2	28	..	635	0.1	5.5
40 days and over	2	2,039	0.8	132,349	21.7	1,650.8
<i>Total.</i>	867	257,989	100.0	609,356	100.0	6,112.8

ALL INDUSTRIES

1 day and less	686	286,550	60.3	177,752	21.8	1,712.9
2 days and more than 1 day	290	110,879	23.4	175,288	21.5	1,665.6
3 days and more than 2 days	155	33,714	7.1	80,813	9.9	740.8
Over 3 days and less than 5 days	102	18,486	3.9	69,890	8.6	657.8
5 days and less than 10 days	85	17,099	3.6	110,610	13.5	1,090.9
10 days and less than 20 days	24	6,249	1.3	68,532	8.4	674.2
20 days and less than 40 days	2	28	..	635	0.1	5.5
40 days and over	2	2,039	0.4	132,349	16.2	1,650.8
<i>Grand total</i>	1,346	475,044	100.0	815,869	100.0	8,198.5

(a) Refers only to disputes involving a stoppage of work of 10 man-days or more, indirectly involved. See footnote (b) to table on page 388.

(b) Includes workers

Causes of disputes

Stoppages are analysed in three separate groups, 'Coal mining', 'Stevedoring', and 'Other industries'. Causes have been grouped under four main headings: (1) Wages, hours and leave; (2) Physical working conditions and managerial policy; (3) Trade unionism; (4) Other causes. The first group is restricted to disputes involving general principles relating to wages, hours and leave; minor questions regarding the claims to pay or leave by individual employees are included under managerial policy. The second group comprises disputes regarding physical working conditions and general questions of managerial policy, including disciplinary action, the promotion of employees, the employment of particular individuals, personal disagreements between employees and supervisory staff, and disputes arising from the computation of wages, leave, etc., in individual cases. The third group includes stoppages over employment of non-unionists, inter-union and intra-union disputes, disputes over recognition of union activities, and sympathy stoppages in support of employees in another industry. The last group comprises disputes by way of protest against situations not arising from the usual relationship of employer and employee, e.g. political matters, and cases (occurring mainly in the coal mining industry) where the cause of the stoppage is not officially made known to the management.

The following tables show particulars of industrial disputes classified according to cause, in three industry groups for 1965, and according to cause for the years 1961 to 1965.

INDUSTRIAL DISPUTES(a): CAUSES, BY INDUSTRY GROUP, AUSTRALIA, 1965

Cause of dispute	Coal mining	Stevedoring	Other industries	All industries
Number of disputes—				
Wages, hours and leave	5	46	375	426
Physical working conditions and managerial policy	115	201	419	735
Trade unionism	31	7	63	101
Other	57	17	10	84
<i>Total disputes</i>	<i>208</i>	<i>271</i>	<i>867</i>	<i>1,346</i>
Workers involved(b)—				
Wages, hours and leave	628	90,952	176,525	268,105
Physical working conditions and managerial policy	17,140	56,979	68,992	143,111
Trade unionism	5,012	2,314	10,396	17,722
Other	12,418	31,612	2,076	46,106
<i>Total workers involved</i>	<i>35,198</i>	<i>181,857</i>	<i>257,989</i>	<i>475,044</i>
Working days lost—				
Wages, hours and leave	740	83,167	444,815	528,722
Physical working conditions and managerial policy	28,825	56,364	150,353	235,542
Trade unionism	6,236	1,067	11,570	18,873
Other	15,192	14,922	2,618	32,732
<i>Total working days lost</i>	<i>50,993</i>	<i>155,520</i>	<i>609,356</i>	<i>815,869</i>

(a) Refers only to disputes involving a stoppage of work of 10 man-days or more. directly involved. See note (b) to table on page 388.

(b) Includes workers

INDUSTRIAL DISPUTES(a): CAUSES, AUSTRALIA, 1961 TO 1965

Cause of dispute	1961	1962	1963	1964	1965
Number of disputes—					
Wages, hours and leave . . .	123	290	279	320	426
Physical working conditions and managerial policy . . .	525	707	748	758	735
Trade unionism . . .	66	92	115	136	101
Other . . .	101	94	108	120	84
<i>Total disputes . . .</i>	<i>815</i>	<i>1,183</i>	<i>1,250</i>	<i>1,334</i>	<i>1,346</i>
Workers involved(b)—					
Wages, hours and leave . . .	114,125	133,312	171,551	235,846	268,105
Physical working conditions and managerial policy . . .	102,125	179,321	142,998	191,354	143,111
Trade unionism . . .	13,797	15,243	22,251	31,670	17,722
Other . . .	70,310	25,977	75,908	86,758	46,106
<i>Total workers involved . . .</i>	<i>300,357</i>	<i>353,853</i>	<i>412,708</i>	<i>545,628</i>	<i>475,044</i>
Working days lost—					
Wages, hours and leave . . .	248,864	194,427	274,901	556,948	528,722
Physical working conditions and managerial policy . . .	261,454	274,091	233,502	257,062	235,542
Trade unionism . . .	34,021	22,418	23,268	33,392	18,873
Other . . .	62,472	17,819	49,897	63,956	32,732
<i>Total working days lost . . .</i>	<i>606,811</i>	<i>508,755</i>	<i>581,568</i>	<i>911,358</i>	<i>815,869</i>

(a) Refers only to disputes involving a stoppage of 10 man-days or more.
involved. See note (b) to table on page 388.

(b) Includes workers indirectly

Methods of settlement of disputes

The following table shows particulars of industrial disputes for 1965, classified according to method of settlement, in three industry groups.

INDUSTRIAL DISPUTES(a): METHODS OF SETTLEMENT, BY INDUSTRY GROUP
AUSTRALIA, 1965

Method of settlement	Coal mining	Stevedoring	Other industries	All industries
NUMBER OF DISPUTES				
By private negotiation . . .	29	..	199	228
By mediation not based on legislation . . .	..	..	..	..
State legislation—				
Under State Conciliation, etc., legislation . . .	3	..	137	140
By reference to State Government officials . . .	..	..	..	..
Commonwealth and Commonwealth-State legislation—				
Industrial Tribunals under—				
Conciliation and Arbitration Act . . .	..	..	104	104
Coal Industry Acts . . .	13	..	..	13
Stevedoring Industry Act . . .	..	1	..	1
Other Acts . . .	..	..	..	..
By reference to Commonwealth Government officials . . .	..	169	1	170
By filling places of workers on strike or locked out . . .	..	..	..	..
By closing down establishment permanently . . .	..	..	..	..
By resumption without negotiation . . .	163	101	425	689
By other methods . . .	..	..	..	..
<i>Total . . .</i>	<i>208</i>	<i>271</i>	<i>866</i>	<i>1,345</i>

INDUSTRIAL DISPUTES(a): METHODS OF SETTLEMENT, BY INDUSTRY GROUP
AUSTRALIA, 1965—continued

Method of settlement	Coal mining	Steve- doring	Other industries	All industries
WORKERS INVOLVED(b)				
By private negotiation	3,411	..	27,491	30,902
By mediation not based on legislation . . . . .	..	..	..	..
State legislation—				
Under State Conciliation, etc., legislation	287	..	22,717	23,004
By reference to State Government officials . . . . .	..	..	..	..
Commonwealth and Commonwealth-State legislation—				
Industrial Tribunals under—				
Conciliation and Arbitration Act . . . . .	..	..	21,769	21,769
Coal Industry Acts	1,626	..	..	1,626
Stevedoring Industry Act . . . . .	..	110	..	110
Other Acts . . . . .	..	..	..	..
By reference to Commonwealth Government officials . . . . .	..	76,816	212	77,028
By filling places of workers on strike or locked out . . . . .	..	..	..	..
By closing down establishment permanently . . . . .	..	..	..	..
By resumption without negotiation	29,874	104,931	185,610	320,415
By other methods . . . . .	..	..	..	..
Total	35,198	181,857	257,799	474,854

WORKING DAYS LOST

By private negotiation	6,504	..	54,686	61,190
By mediation not based on legislation . . . . .	..	..	..	..
State legislation—				
Under State Conciliation, etc., legislation	586	..	70,805	71,391
By reference to State Government officials . . . . .	..	..	..	..
Commonwealth and Commonwealth-State legislation—				
Industrial Tribunals under—				
Conciliation and Arbitration Act . . . . .	..	..	94,236	94,236
Coal Industry Acts	4,117	..	..	4,117
Stevedoring Industry Act . . . . .	..	46	..	46
Other Acts . . . . .	..	..	..	..
By reference to Commonwealth Government officials . . . . .	..	90,202	418	90,620
By filling places of workers on strike or locked out . . . . .	..	..	..	..
By closing down establishment permanently . . . . .	..	..	..	..
By resumption without negotiation	39,786	65,272	387,535	492,593
By other methods . . . . .	..	..	..	..
Total	50,993	155,520	607,680	814,193

(a) Refers only to disputes involving a stoppage of work of 10 man-days or more. (b) Includes workers indirectly involved. See note (b) to table on page 388. (c) Differences between these figures and corresponding figures in tables on pages 387-91 are due to disputes which were incomplete at the end of the year.

WORKERS' COMPENSATION LEGISLATION

A conspectus of the principal provisions of Workers' Compensation Acts in force in Australia at 31 December 1964 is included in *Labour Report* No. 51, pages 215-23.

LABOUR ORGANIZATIONS**Labour organizations in Australia**

The figures shown in this section are prepared from a special collection of membership of labour organizations at 31 December each year. The affairs of single unions are not disclosed in the published results and this has assisted in securing complete information. The Bureau is indebted to the secretaries of trade unions for their co-operation in supplying information. More detailed statistics appear in the annual *Labour Report*.

Trade Unions

The trade unions in Australia are very diverse in character, and range from the small independent association to the large interstate organization, which, in its turn, may be a branch of an international body. Broadly speaking, there are four distinct classes of labour organizations: (a) the local independent; (b) the State; (c) the interstate; and (d) the Australasian or international; but a number of variations occur from each of these classes. The schemes of organization of interstate or federated unions vary greatly in character. In some unions the State organizations are bound together under a system of unification with centralized control,

while in others the State units are practically independent and self-governing, the federal bond being loose and existing only for one or two specified purposes. Statistics relating to interstate or federated trade unions are shown in the table on page 394.

Returns showing membership by States and Territories at 31 December each year are obtained for all trade unions and employee organizations. The following table shows the position at the end of each of the years 1963 to 1965.

TRADE UNIONS: NUMBER AND MEMBERSHIP, STATES AND TERRITORIES, 1963 TO 1965

State or Territory	Number of separate unions			Number of members ('000)			Percentage increase in membership(a)		
	1963	1964	1965	1963	1964	1965	1963	1964	1965
New South Wales.	227	223	222	782.7	795.1	825.8	2.2	1.6	3.9
Victoria	154	157	156	514.9	525.8	537.8	3.4	2.1	2.3
Queensland	137	141	140	339.4	350.6	353.3	1.6	3.3	0.8
South Australia	134	137	137	161.1	166.9	174.0	0.4	3.6	4.2
Western Australia	154	154	155	129.0	135.1	139.2	6.5	4.7	3.1
Tasmania	103	111	109	57.4	59.9	63.4	0.4	4.2	6.0
Northern Territory(b)	30	30	33	3.3	3.4	3.5	(b)	(b)	(b)
Australian Capital Territory(b)	54	59	64	15.7	18.0	19.1	(b)	(b)	(b)
Australia	(c) 347	(c) 340	(c) 334	2,003.5	2,054.8	2,116.2	2.7	2.6	3.0

(a) On preceding year. (b) In some cases union members in the Territories associated with State organizations are reported under the heading of that State. The annual figures reflect, in part, progressive improvements to more accurate reporting, and the comparability of totals for the Territories is affected by this aspect. (c) Without interstate duplication. See below.

In the preceding table, under the heading 'Number of separate unions', a union reporting members in a State or Territory is counted as one union within that State or Territory. The figures do not add to the Australian total (shown in the last line) because a union represented in more than one State or Territory is included in the figure for each State or Territory in which it is represented, but is counted only once in the Australian total.

A table showing the number and membership of trade unions in Australia for the years 1912 to 1964 is included in Appendix XII to *Labour Report* No. 51.

The following table shows the number of unions and members thereof in Australia at the end of each of the years 1963 to 1965 classified according to industry group.

TRADE UNIONS: INDUSTRY GROUPS, AUSTRALIA, 1963 TO 1965

Industry group	1963		1964		1965	
	No. of unions (a)	No. of members	No. of unions (a)	No. of members	No. of unions (a)	No. of members
		'000		'000		'000
Agriculture, grazing, etc.	3	60.8	3	63.3	3	63.9
Mining and quarrying	12	35.0	12	35.2	12	35.9
Manufacturing—						
Engineering, metals, vehicles, etc.	12	301.5	12	312.8	11	328.0
Textiles, clothing and footwear	7	107.7	6	109.9	6	113.7
Food, drink and tobacco	34	136.7	33	130.9	32	130.0
Sawmilling, furniture, etc.	6	39.7	6	39.5	6	39.5
Paper printing, etc.	6	53.4	6	53.2	6	54.7
Other manufacturing	31	90.8	29	95.0	28	95.1
All manufacturing groups	96	729.8	92	741.3	89	761.1
Building and construction	25	144.9	24	146.9	24	150.9
Railway and tramway services	25	133.8	24	131.2	24	132.0
Road and air transport	10	66.2	11	68.0	11	71.7
Shipping and stevedoring	14	33.3	14	35.1	14	35.4
Banking, insurance and clerical	19	126.4	17	132.8	15	137.3
Wholesale and retail trade	12	84.2	12	86.3	12	86.2
Public administration(b)	70	374.0	72	389.2	71	405.9
Amusement, hotels, personal service, etc.	23	54.1	22	54.8	22	56.3
Other industries(c)	38	161.0	37	170.6	37	179.6
All industry groups	347	2,003.5	340	2,054.8	334	2,116.2

(a) Without interstate duplication. See above. (b) Includes communication, municipal, etc. (c) Includes community and business services.

Number of Trade Union members and proportion of wage and salary earners. The following table shows the estimated percentages of wage and salary earners in employment who are members of trade unions. As estimates of wage and salary earners in employment do not include employees engaged in rural industry or in private domestic service, the percentages have been calculated on figures obtained by adding to the end of year estimates the number of employees in rural industry and in private domestic service recorded at the nearest available population census. For this reason, and also because the membership of trade unions includes some persons not in employment, the percentages shown in the table must be regarded as approximations.

TRADE UNIONS: NUMBER OF MEMBERS AND PROPORTION OF TOTAL WAGE AND SALARY EARNERS, AUSTRALIA, 1954 TO 1965

Year	Number of members ('000)			Proportion of total wage and salary earners(a) (Per cent)		
	Males	Females	Persons	Males	Females	Persons
1954 . . .	1,448.2	339.3	1,787.5	66	45	61
1961 . . .	1,521.9	372.7	1,894.6	63	41	57
1962 . . .	1,561.9	388.6	1,950.5	64	41	57
1963 . . .	1,588.5	415.0	2,003.5	62	42	57
1964 . . .	1,624.0	430.8	2,054.8	62	41	56
1965 . . .	1,667.2	449.0	2,116.2	62	41	56

(a) See text above.

Interstate or Federated Trade Unions. The following table gives particulars of the number and membership of interstate or federated trade unions in 1965.

INTERSTATE OR FEDERATED TRADE UNIONS(a): AUSTRALIA, 1965

	Unions operating in—					Total
	2 States	3 States	4 States	5 States	6 States	
Number of unions . . .	10	4	21	35	73	143
„ „ members ('000) .	21.4	26.3	115.9	480.7	1,281.6	1,925.9

(a) Certain unions in this group have, in addition to branches in the States, branches in the Northern Territory or the Australian Capital Territory or both.

Organizations registered under the (Commonwealth) Conciliation and Arbitration Act

Under Part VIII. of the *Conciliation and Arbitration Act* 1904–1965 any association of employers in an industry who have, or any employer who has, employed, on an average taken per month, not less than 100 employees during the six months preceding application for registration, and any association of not less than 100 employees in any industry, may be registered. However, the Public Service Arbitration Act provides that an association of less than 100 employees may be registered as an organization under the Conciliation and Arbitration Act if its members comprise at least three-fifths of all persons engaged in that industry in the Public Service. Such organizations are included in the figures shown below. Registered unions include both interstate associations and associations operating within one State only. Registration under Commonwealth legislation began in 1906. At the end of 1965 the number of employers' organizations registered under the provisions of the Act was 66. The number of unions registered at the end of 1965 was 155, with membership of 1,779,100, representing 84 per cent of the total membership of all trade unions in Australia. Lists of organizations of employees and of employers registered under this Act are contained in the *Industrial Information Bulletin*, Vol. 21, No. 1, January 1966 published by the Department of Labour and National Service.

Central Labour Organizations

Trades and Labour Councils. Delegate organizations, usually known as Trades Hall Councils or Labour Councils and consisting of representatives of a number of trade unions have been established in the capital cities and in a number of other centres in each State. In the centres where these councils exist most unions or local branches operating in the district are affiliated. The district councils obtain their finance by means of a *per capita* tax on members of affiliated unions. In States other than Western Australia the district councils are generally independent bodies, although provision usually exists in the rules of the central council in the capital city for the organization of district councils, or for their representation on the central council. In Western Australia there was until 1962 a unified system of organization with a central council and district councils within the framework of the Australian Labor Party. In 1962 this organization was abolished and a separate Trades and Labour Council, to have provincial councils, was established outside the political organization. At the end of 1963 only the central council (the Trades and Labour Council of Western Australia) was operating, but a number of provincial councils were established during 1964.

The following table shows, for each State and Territory, the number of trades and labour councils and the number of affiliated unions or branches of unions at the end of 1965. The figures for the number of unions do not necessarily represent separate unions, since the branches of a large union may be affiliated with the local trades councils in the several towns in which they are represented.

CENTRAL LABOUR ORGANIZATIONS: NUMBER, AND UNIONS AND BRANCH UNIONS AFFILIATED, STATES AND TERRITORIES, 1965

—	N.S.W	Vic.	Qld	S.A.	W.A. (a)	Tas.	N.T.	A.C.T.	Total
Number of councils . . .	12	9	13	6	4	5	..	1	50
Number of unions and branch unions affiliated .	347	282	179	150	164	138	..	27	1,287

(a) See explanation in text above.

As well as trades and labour councils there are councils organized on trade lines and composed of delegates from separate unions whose members' interests are closely connected by reason of their occupations. Delegate councils of bakers, bread carters and mill employees, or of unions connected directly or indirectly with the metal trades, or with the building trades, are examples of such organizations.

Australian Council of Trade Unions. A central labour organization, now called the Australian Council of Trade Unions, came into being during 1927. The Council was created to function on behalf of the trade unions of Australia, and was founded at an All-Australian Trade Union Congress held in Melbourne in May 1927. The A.C.T.U. consists of affiliated unions and affiliated Metropolitan and/or State Labour Councils and Provincial Councils. The Metropolitan or State Labour Council in each State is the State Branch of the A.C.T.U. and it has the right to appoint one representative to act on the executive of the Council. In addition to the representatives of the State Branches of the A.C.T.U., six delegates are elected by and from Congress, one from each of the following industry groups: Building, Food and distributive services, Manufacturing, Metal, Services, and Transport. To this executive are added the four officers, namely, President, two Vice-Presidents, and Secretary, who are elected by and from the Australian Congress of Trade Unions.

The ordinary meetings of Congress are held in alternate years. The 1965 Biennial Congress was held in September 1965, and was attended by 573 delegates from affiliated organizations, State branches of the A.C.T.U., and provincial councils. Special meetings of Congress are held whenever deemed advisable by decision of the executive, as approved by the majority of its branches, or by resolution of unions representing one-third of the total membership of the A.C.T.U.

The objectives of the A.C.T.U. are the socialization of industry, i.e. production, distribution and exchange, and the utilization of the resources of Australia for the benefit of the people—ensuring full employment, with rising standards of living, real security and full cultural opportunities for all. The methods to be adopted are: the closer organization of the workers by the transformation of the Australian trade union movement from the craft to an industrial basis, by grouping of unions in their respective industries and by the establishment of one union in each industry; the consolidation of the Australian labour movement with the object of unified control, administration, and action; the centralized control of industrial disputes; educational propaganda among unions; and political action to secure satisfactory working-class legislation.

The A.C.T.U. was the first interstate body in Australia with authority to deal with industrial matters of an interstate character affecting the trade union movement generally. It is also the body responsible for submitting to the Commonwealth Government the names of persons suitable for selection as the Australian workers' delegate to the annual International Labour Conference. All the major unions are affiliated with the A.C.T.U., with the exception of the largest, the Australian Workers' Union, which is itself virtually a central organization of branches catering in the main for employees in rural and construction industries.

International Labour Organisation

The International Labour Organisation (I.L.O.) was established on 11 April 1919 as an autonomous institution associated with the League of Nations. Its original constitution was adopted as Part XIII. of the Treaty of Versailles and formed part of other treaties of peace. During the years between its establishment and the outbreak of the 1939-45 War the I.L.O., with headquarters at Geneva, played a leading role in promoting the improvement of labour conditions throughout the world.

In 1940, in order to ensure that the I.L.O. should be able to continue to function freely, a working centre was established at Montreal, Canada. In 1946 the Organisation became the first of the specialized agencies of the United Nations. Under the terms of agreement the United Nations recognizes the I.L.O. as a specialized agency having responsibility in the field defined by its constitution, which embraces labour conditions, industrial relations, employment organizations, social security and other aspects of social policy. The Organisation has three basic parts. These are the International Labour Conference, its highest authority, which as a rule meets annually; the Governing Body, its executive council, which usually meets three times each year; and the International Labour Office, which provides the secretariat of the Organisation. The Conference is composed of delegations from the Member States of the Organisation. At the end of 1965 there were 115 Member States, each of which is entitled to be represented by four delegates—two government, one representing employers and one representing workers, together with their advisers. Each delegate speaks and votes independently, so that all points of view in each country are fully expressed. The Governing Body consists of the representatives of twenty-four governments and twelve employers' and twelve workers' representatives. Of the twenty-four government representatives, ten are from the ten countries of major industrial importance and fourteen are elected by the remaining governments. These latter fourteen government representatives and the twelve employers' and twelve workers' titular delegates and the deputy members of the three groups are elected by their groups at the Conference every three years. Particulars are given in *Labour Report* No. 51 of the proceedings of International Labour Conferences up to the 47th Session, held in Geneva in June 1964. For details of I.L.O. conventions ratified by Australia, see *Labour Report* No. 51, pages 235-6.

CHAPTER 13

OVERSEA TRANSACTIONS

This chapter includes the contents of the former chapter Oversea Trade (covering oversea trade and balance of payments) together with the material on oversea investment by private investors which has been transferred from the chapter Private Finance. Because of the limitations of space the statistics in the chapter are, in the main, restricted to summarized form. The half-yearly bulletin *The Balance of Payments* and the *Annual Bulletin of Oversea Investment* contain detailed information on these subjects. For details of imports and exports see the annual bulletins on *Oversea Trade* (preliminary and final), *Australian Exports*, and *Imports Cleared for Home Consumption*. Preliminary information is available in summary form in the statements *Balance of Payments*; *Quarterly Summary*; *Oversea Investment: Preliminary Estimates* (annual); *Australian Oversea Trade: Recorded Trade Excluding Bullion and Specie* (monthly); and *Oversea Trade: Imports by Commodity Divisions* (monthly). Current information is included in the *Quarterly Summary of Australian Statistics*, the *Monthly Review of Business Statistics*, the *Digest of Current Economic Statistics*, and in more detail in the *Monthly Bulletin of Oversea Trade Statistics*. There are also the following additional mimeographed statements: *Exports of Wool* (monthly), *Oversea Trade with Major Groups of Countries* (quarterly), and *Trade of Australia with Eastern Countries* (annually). Additional unpublished details of imports and exports can be supplied on request.

OVERSEA TRADE

Constitutional provisions and legislation

Constitutional provisions

By the Commonwealth of Australia Constitution Act, section 51 (1), the power to make laws with respect to trade and commerce with other countries was conferred on the Commonwealth Parliament. Under section 86 of the Constitution, the collection and control of duties of customs and excise passed to the Executive Government of the Commonwealth on 1 January 1901. Other references to trade and commerce are contained in sections 87 to 95 of the Constitution (see pp. 17-18).

Commonwealth legislation

Commonwealth legislation affecting oversea trade includes: the Customs Act, the Customs Tariff, the Customs Tariff (Dumping and Subsidies) Act. The Customs Act is the administrative Act under which the Department of Customs and Excise operates. The Customs Tariff provides the statutory authority for imposing the actual rates of duty operative from time to time, while the Customs Tariff (Dumping and Subsidies) Act provides protection for Australian industry against various forms of unfair trading.

The Customs Tariff

The first Commonwealth Customs Tariff was introduced by Resolution on 8 October 1901, from which date uniform duties came into effect throughout Australia. The Australian Customs Tariff has been developed in conformity with the policy of protecting economic and efficient Australian industries and of granting preferential treatment to certain imports from countries of the Commonwealth. Duties are imposed on some goods, generally of a luxury nature, for revenue purposes. Customs collections are a major source of revenue, but in its protective character the tariff has an important influence on the Australian economy.

The present tariff provides for general and preferential rates of duty, and its structure is based on the 'Brussels Nomenclature' which has its origins in the Convention on Nomenclature for the Classification of Goods in Customs Tariffs, signed in Brussels on 15 December 1950. Australia has operated a 'Brussels-type' tariff since 1 July 1965.

Preferential rates. Preferential rates apply to goods the produce or manufacture of the United Kingdom and Ireland and to goods the produce or manufacture of Canada, New Zealand, Papua and New Guinea, and certain goods the produce or manufacture of certain specified countries, provided that such goods comply with the laws in force at the time affecting the grant of preference.

The following are the rules of origin for preference purposes.

'151.—(1.) For the purposes of this Act and the *Customs Tariff* 1965 (other than section nineteen of the last-mentioned Act), goods shall be treated as the produce of a country if they are unmanufactured raw products of the country.

(2.) For the purposes of this Act and the *Customs Tariff* 1965 (other than section nineteen of the last-mentioned Act), goods shall be treated as the manufacture of a country—

(a) if the goods were wholly manufactured in the country from materials of one or more of the following classes:—

(i) unmanufactured raw products;

(ii) materials wholly manufactured in the country or in Australia, or in the country and in Australia; and

(iii) imported materials that the Minister has, in relation to the country, determined, by notice published in the *Gazette*, to be manufactured raw materials; or

(b) if the goods were partly manufactured in the country, the process last performed in the manufacture of the goods was performed in the country and—

(i) not less than three-quarters, or, in a case where the country is New Zealand, one-half, of the factory or works cost of the goods is represented by the value of labour or materials, or of labour and materials, of the country or of the country and Australia;

(ii) in a case where the goods are goods of a class or kind not commercially manufactured in Australia, not less than one-quarter of the factory or works cost of the goods is represented by the value of labour or materials, or of labour and materials, of the country or of the country and Australia; or

(iii) in a case where the country is New Zealand, not less than three-quarters of the factory or works cost of the goods is represented by the value of labour or materials, or of labour and materials, of New Zealand and the United Kingdom or of New Zealand, Australia and the United Kingdom.

'151A.—(1.) For the purposes of this Act and the *Customs Tariff* 1965 (other than section nineteen of the last-mentioned Act), goods shall not be treated as the produce or manufacture of the United Kingdom, Canada, New Zealand, Ireland, Malawi, Southern Rhodesia, Zambia, the Territory of Papua or the Territory of New Guinea unless they have been shipped from that country to Australia and, except where the Collector is satisfied that the intended destination of the goods when originally shipped from that country was Australia, have not been transhipped.

(2.) The last preceding sub-section does not apply—

(a) to goods the produce or manufacture of a country other than New Zealand that are imported into Australia from New Zealand; or

(b) to goods the produce or manufacture of a country other than the Territory of Papua or the Territory of New Guinea that are imported into Australia from the Territory of Papua or the Territory of New Guinea.

(3.) For the purposes of sub-section (1.) of this section—

(a) goods may be treated as having been shipped from the Territory of Papua or the Territory of New Guinea if they have been shipped from either of those territories; and

(b) goods may be treated as having been shipped from Malawi, Southern Rhodesia or Zambia if they have been shipped from any of those countries or from Lourenco Marques or Beira in Mozambique.

General rates. General rates apply to goods from all countries which do not qualify for preferential rates of duty under a particular item.

By-law provisions. Customs By-laws and Ministerial Determinations are instruments made by the Minister for Customs and Excise, under the authority of Sections 271 to 273D of the Customs Act by which goods may be admitted free of duty or at rates of duty lower than those normally applicable. By-laws and determinations may only be made under a by-law item, which is a tariff item containing the words 'as prescribed by by-law'. Such an item sets out the by-law duty rates which will apply to goods only when such goods are included in a by-law or determination made under that item. By-law admission of goods is in general guided by the use to which the goods are to be put, e.g. the goods must be for a use which will assist economic or industrial development. A prerequisite for by-law admission is that suitably equivalent goods be not reasonably available from Australian production. A by-law covers goods by general description with no limit on quantity, and may be used by any importer of the goods. A determination covers a specific quantity of particular goods, and may be used only by the importer mentioned in the determination.

Primage duties. In addition to the ordinary duties of customs imposed by the Customs Tariff, *ad valorem* primage duties at rates of five per cent or ten per cent are charged on some goods according to the types of goods and origin thereof. Other goods are exempt from primage duty. Goods the produce or manufacture of New Zealand, Norfolk Island, Fiji, Cocos (Keeling) Islands, Christmas Island, Papua and New Guinea are exempt from primage duty.

Anti-dumping duties. The Customs Tariff (*Dumping and Subsidies*) Act 1961 provides protection for Australian industry against various forms of unfair trading. Under this Act dumping duty may be imposed on goods that are sold to Australian importers at a price which is less than the normal value of the goods, where this causes or threatens material injury to an Australian industry. 'Normal value' under the Act means:

- (a) fair market value in the country of export;
- (b) price in the country of export to a third country;
- (c) fair market value in a third country; or
- (d) cost of production, plus f.o.b. charges, plus selling costs and profit.

Countervailing duty may be levied on goods in respect of which any subsidy, bounty, reduction, or remission of freight or other financial assistance has been, or is being, paid or granted directly or indirectly upon the production, manufacture, carriage or export of those goods. The amount of the countervailing duty in respect of any goods is a sum equal to the amount of the subsidy, bounty, reduction or remission of freight or other financial assistance.

Import controls—Customs (Import Licensing) Regulations

A comprehensive system of import licensing was introduced in Australia at the beginning of the second World War under the authority of the Customs (Import Licensing) Regulations. Following the gradual relaxation of the restrictions from the end of the War, import licensing was reimposed on 8 March 1952 and continued in force until 18 October 1962. From that date restrictions were removed from all commodities with the exception of some goods retained under control for reasons associated with the protection of Australian industry. Further information on import controls is contained in Year Book No. 51, page 492.

Export controls and incentives

Commodity control. Section 112 of the Customs Act provides that the Governor-General may, by regulation, prohibit the exportation of goods from Australia, and that this power may be exercised by: (a) prohibiting the exportation of goods absolutely; (b) prohibiting the exportation of goods to a specified place; and (c) prohibiting the exportation of goods unless prescribed conditions or restrictions are complied with. Goods subject to this export control are listed in the Customs (Prohibited Exports) Regulations.

Exchange control—Banking Act 1959–1965. As an integral part of the framework of exchange control, a control over goods exported from Australia is maintained under the provisions of Part III. of the Banking (Foreign Exchange) Regulations, to ensure that the full proceeds of such goods are received into the Australian banking system and that these proceeds are received in the currency and in the manner prescribed by the Reserve Bank of Australia. This action is complementary to that taken under other parts of the Banking (Foreign Exchange) Regulations and under Part IV. of the *Banking Act 1959* to control the movement out of Australia of capital in the form of securities, currency and gold.

Export licences are issued subject to terms and conditions specified in the Banking (Foreign Exchange) Regulations, and may be subject to such further terms and conditions as are determined, or may be free from terms and conditions. On the receipt in Australia by the Reserve Bank, or by a bank acting as agent for that Bank, of advice that the foreign currency has been paid to the Reserve Bank or to an agent of the Bank in payment for goods exported in accordance with a licence granted under the regulations, the Bank, or an agent of the Bank, pays the licensee, or such other person as is entitled to receive it, an amount in Australian currency equivalent to the foreign currency received. In addition to commercial transactions involving exports, movements of personal effects are also controlled. Persons leaving Australia for overseas are required to obtain licences to cover their bona fide baggage, personal effects and household effects in any individual case where the gold content thereof exceeds \$A250, or where jewellery and other articles of high intrinsic worth either exceed \$A2,000 in value or have not been the personal property of the passenger for at least twelve months.

Export incentives. The Commonwealth Government provides taxation concessions as financial incentives to export. A special income tax allowance for export market development expenditure is designed to encourage firms to incur promotion expenditure in advance of export sales and to assist exporters and potential exports to expand sales in the existing markets and to enter new overseas markets. The allowance is in the form of a special deduction equal and additional to the ordinary deduction allowable in respect of specified expenses allowable in determining

taxable income. Rebates of pay-roll tax are also granted to employers whose export sales of goods or property rights have increased above their average annual level in a base period. The rebate is available in the first place to employers who are producers for export, but a producer for export may issue an export certificate to an employer who has supplied components embodied in the final product.

Trade descriptions

The Commerce (Trade Descriptions) Act 1905-1950 gives power to require the application of a proper trade description to certain prescribed goods imported into or exported from Australia. Goods which must bear a prescribed trade description upon importation into Australia are specified in the Commerce (Imports) Regulations. As regards exports from Australia, marking requirements are prescribed in regulations issued under the Act and relating to specified export commodities.

Government authorities

Tariff Board

The Tariff Board Act 1921-1962 provides for the appointment of a Tariff Board consisting of eight members. Of these, two must, and three may, be members of the Commonwealth Public Service at the time of their appointment (or first appointments in the case of re-appointments). Members of the Board are appointed for terms of not less than one year and not more than five years. The purpose of the Tariff Board is to advise the Government on matters relating to the protection and encouragement of Australian industry.

The Minister of State for Trade and Industry is required to refer to the Board for inquiry and report the following matters: the necessity for new, increased, or reduced duties; the necessity for granting bounties and the effect of existing bounties; and any complaint that a manufacturer is taking undue advantage of the protection afforded him by the Tariff or by the restriction of the importation of any goods by charging unnecessarily high prices for his goods or acting in restraint of trade. In addition, the Minister may refer the following matters to the Tariff Board for inquiry and report: the general effect of the working of the Customs Tariff and the Excise Tariff; the fiscal and industrial effects of the Customs laws on the Commonwealth; the incidence between the rates of duty on raw materials and on finished or partly finished products; and other matters affecting the encouragement of primary and secondary industries in relation to the Tariff. The Minister of State for Customs and Excise may refer to the Tariff Board for inquiry and report the following matters: the classification of goods in the Customs Tariff or Excise Tariff and matters in connection with the interpretation of these Tariffs; the question of the value for duty of goods; whether goods not prescribed in departmental by-laws should be so prescribed; and any matters in respect of which action may be taken under the *Customs Tariff (Dumping and Subsidies) Act 1961-1965*.

Where a matter of the necessity for new or increased duties on any goods has been referred to the Board for inquiry and report, the Board may, in its report, recommend the restriction of the importation of those goods for such period as is specified in the report.

Inquiries conducted by the Board relating to a revision of the Tariff, a proposal for a bounty, a question under the Customs Tariff (Dumping and Subsidies) Act, or any complaint that a manufacturer is taking undue advantage of the protection afforded him by the Tariff or by the restriction of the importation of any goods, are held in public, and evidence in such inquiries is taken in public on oath, unless the Board accepts evidence as confidential or in the form of a written statement by a witness on oath. The Board is required to make available to the public the contents of any such written statement except any matter which it accepts as confidential.

Special Advisory Authority

The Minister for Trade and Industry may also request a Special Advisory Authority to inquire into cases where urgent action appears necessary to protect an Australian industry against import competition pending receipt and consideration of a full report by the Tariff Board. The Special Advisory Authority's report must be submitted to the Minister within thirty days of the making of the request. Temporary protection recommended by a Special Advisory Authority may be imposed, but may only operate for a period of up to three months after the date of receipt of the final report by the Tariff Board on the goods concerned.

Trade agreements

Multilateral—General Agreement on Tariffs and Trade

The General Agreement on Tariffs and Trade (G.A.T.T.), which came into force on 1 January 1948, is a multilateral trade treaty designed to facilitate trading relations between participating countries by reducing tariff and other barriers to the free interchange of goods. The Agreement provides a framework within which negotiations can be held to reduce barriers to trade, and a

structure for embodying the results of such negotiations in a legal instrument. Features of the Agreement are the schedules of tariff concessions participating countries have negotiated with each other, the application of most-favoured-nation treatment among the participants, the avoidance of trade discrimination, and a code of agreed commercial policy rules for international trading. Each participating country retains the right (a) to impose new duties for protective purposes, except in respect of commodities where rates of duty have been fixed in negotiations under the Agreement; (b) to impose import restrictions to protect the balance of payments; and (c) to take emergency action where any industry is endangered by reason of any obligation incurred under the Agreement.

There have been five main tariff negotiations under the provisions of the Agreement, and a number of smaller scale negotiations preceding the accession of individual countries. As a result the tariff rates for many items entering into world commerce have been reduced or bound against increase. Australia has obtained tariff concessions from individual countries on a number of her principal or potential exports to them, both as a result of direct negotiation by Australia and of negotiation by other countries. In the latter case the benefits occurred through the operation under the Agreement of the most-favoured-nation principle. A sixth series of tariff negotiations, the Kennedy Round, based on a plan for linear tariff cuts on all classes of products, including agricultural and primary products with a minimum of exceptions, and on the reduction of non-tariff barriers to trade, began in May 1964.

Increasing attention has been focussed in G.A.T.T. on specific trade and development problems of developing countries. In February 1965 a new Part IV of G.A.T.T., aimed at helping developing countries solve these problems, came into force on a *de facto* basis. The new Part IV gives a contractual and legal basis for commitments on individual and joint action by contracting parties, aimed at ensuring that the less-developed countries can increasingly find the means to raise standards of living and promote rapid economic development through participating in international trade and sustained growth of their export earnings.

Up to the end of March 1965 the contracting parties had held twenty-two sessions, nearly all in Geneva, to deal with matters arising from the administration of the Agreement. As a general rule the contracting parties meet once a year, although in a few instances they have met twice. In 1960 a Council of Representatives was established to undertake work, both of an urgent and of a routine character, between the regular sessions of the contracting parties. Some of the provisions of the Agreement were revised in 1954 and 1955. The revised Agreement contains tighter provisions on non-tariff barriers to trade, and allows more freedom for countries to revise individual tariff items which had been bound against an increase in tariff negotiations under the Agreement.

Since G.A.T.T. has not been accepted definitively by any country, the Agreement is at present being applied pursuant to a Protocol of Provisional Application. At the end of January 1966 sixty-seven countries, whose foreign trade represents about 80 per cent of the total volume of world trade, were full contracting parties to the Agreement, six had acceded provisionally, five countries applied the Agreement on a *de facto* basis, and two countries participated under special arrangements.

Bilateral agreements

The United Kingdom. The original United Kingdom and Australia Trade Agreement (Ottawa Agreement) was signed on 20 August 1932. The provisions and history of the agreement were published in Year Book No. 43, page 329. A new Trade Agreement designed to replace the original agreement and correct the imbalance in benefits which had emerged in the twenty-five years of its operation came into effect on 9 November 1956. Briefly this agreement preserves security for Australian exports in the United Kingdom market, but lowers the obligatory margins of preference which Australia extends to the United Kingdom. The agreement provides for re-negotiation after the initial five-year period, but by arrangement between the two Governments this re-negotiation has been postponed. In the meantime the agreement continues subject to six months notice of termination by either country. Further details for the 1956 Agreement may be obtained from Year Book No. 51, page 495.

Canada. The existing agreement between Australia and Canada came into force on 30 June 1960, replacing an agreement signed on 3 August 1931. The agreement provides for Australian goods to receive British Preferential Tariff rates, or better, upon entry into Canada, and for Canada to maintain margins of preference in favour of Australia on a range of commodities. The agreement specifies that Canada goods, with some exceptions, shall receive the benefit of the British Preferential Tariff upon importation into Australia and that Australia shall maintain margins of preference in favour of Canada on a range of commodities. The agreement continues subject to six months notice.

New Zealand. The New Zealand-Australia Free Trade Agreement came into force on 1 January 1966. The agreement provides for free trade in certain scheduled goods. Provision is made for the addition of items to the schedule. The provision of the 1933 Trade Agreement between Australia and New Zealand continues in force as part of the Free Trade Agreement, except as superseded or modified by it.

Federation of Rhodesia and Nyasaland. A trade agreement was negotiated with the Federation in June 1955. (Australia's principal undertaking was to grant an exclusive tariff preference to the Federation on unmanufactured tobacco. The Federation accorded preferential tariff treatment on a wide range of Australian goods, including wheat and powdered and condensed milk.) The Federation was dissolved on 31 December 1963, but application of the Agreement was continued on a provisional basis between Australia and each of the three constituent territories Zambia (Northern Rhodesia), Rhodesia (Southern Rhodesia) and Malawi (Nyasaland).

Malaysia. A trade agreement with the then Federation of Malaya became effective in August 1958. Under the agreement Malaya undertook to protect Australian wheat and flour from dumped or subsidized competition and to extend to Australia any tariff preferences it accords. Australia guaranteed free entry for natural rubber so long as the Papua-New Guinea crop was absorbed, and assured the Federation that natural rubber would not be at a disadvantage compared with synthetic rubber in respect of tariff or import licensing treatment. The Agreement continues to apply between Australia and that portion of Malaysia known previously as the Federation of Malaya.

Japan. An Agreement on Commerce between the Commonwealth of Australia and Japan was signed on 6 July 1957, and formally ratified on 4 December 1957. It was provided that the Agreement would remain in force until 5 July 1960, and thereafter unless prior notice of termination should be given by either Government. The agreement provides that each country shall extend most-favoured-nation treatment to the other in respect of customs duties and similar charges, and import and export licensing. Japan is not entitled to claim the benefit of preferences accorded by Australia to Commonwealth countries and dependent territories. Japan also gave certain specific commitments on some important Australian export commodities.

Following a review of the agreement, a Protocol of Amendment was signed on 5 August 1963 and formally ratified on 27 May 1964. Under the Protocol Australia agreed to withdraw action against Japan under Article XXXV of the General Agreement on Tariffs and Trade, and thus a full G.A.T.T. relationship was established between the two countries.

The specific undertakings agreed in 1957 have now lapsed and the following commitments have been entered into.

Japan has:

- (a) undertaken not to accord less favourable import treatment (apart from tariff) for raw wool than for raw cotton,
- (b) stated that it has no present intention of imposing a duty on wool,
- (c) undertaken to continue imports of Australian soft wheat at a stabilized level, and to purchase Australian hard wheat when necessary requirements are met,*
- (d) stated that it will endeavour to expand opportunities for imports into Japan of Australian sugar, canned meat, leather, motor vehicles, butter and cheese.

Australia has:

- (a) undertaken to consult Japan on temporary protection cases affecting Japanese products (in such consultations Japan will consider whether the need for temporary protection can be obviated by measures taken in Japan),
- (b) stated that equal opportunities of fair and equal competition are accorded to Japanese products in Australian Government purchases overseas.

The new agreement will be effective for three years from the date of ratification and thereafter subject to three months' notice of termination by either Government. There is provision for consultations to take place at least annually.

Indonesia. This agreement came into operation on 1 July 1959. It records the desirability of expanding trade between Australia and Indonesia. It also gives special recognition to the importance of the flour trade from Australia to Indonesia. Australia recognizes the importance to Indonesia of its traditional exports to Australia. The agreement is subject to review and renewal annually.

Philippines. A trade agreement with the Philippines was signed in Manila on 16 June 1965. The agreement provides for an exchange of non-discriminatory treatment while recognizing existing preferences. The agreement is to operate for one year initially and continue thereafter unless one Government gives ninety days notice of its intention to terminate it. The Philippines is not a member of G.A.T.T.

U.S.S.R. A trade agreement between Australia and the U.S.S.R. was signed in Moscow on 15 October 1965. The agreement provides for the exchange of non-discriminatory treatment between the two countries. It operates initially for a period of four years. There is provision for consultation on request about any matter affecting the operation of the agreement.

* 'Soft' wheat is fair average quality wheat; 'hard' wheat is premium grade wheat similar to that grown in North America.

Korea. On 21 September 1965 a trade agreement was signed in Seoul between Australia and South Korea. Basically the agreement provides for an exchange of non-discriminatory treatment with allowances for existing preferences. The agreement, to run for one year with provision for automatic extension, also provides for non-discrimination by State trading enterprises. Both Governments undertake to use their best endeavours to increase the volume of trade between the two countries. The importance of the agreement for Australia is that our trade is now guaranteed continued non-discriminatory treatment whereas this was formerly given on a non-contractual basis. Korea is not a member of G.A.T.T.

Trade services

Trade Commissioner Service

The stimulation of interest abroad in Australia's exports is an important government activity in which the Australian Trade Commissioner Service plays a prominent part. A brief account of the establishment and growth of the Trade Commissioner Service before the Second World War is available in Year Book No. 51, page 496. Since the War the service has increased steadily and by December 1965 there were 43 Trade Commissioner posts in thirty-two countries. In 1957 Australia's official commercial representation overseas was extended by the introduction of a system of government Trade Correspondents. These correspondents, who as a rule already reside in particular centres overseas, are engaged on a part-time basis to carry out market research, arrange introductions between buyer and seller, and generally promote Australia's trade interests in the same way as Trade Commissioners. Each Trade Correspondent operates under the general direction of the nearest Trade Commissioner.

Trade Commissioners and, to a lesser extent, Trade Correspondents, are responsible for commercial intelligence in their territories. Particular facilities provided for Australian exporters and export organizations include: surveys of market prospects; advice on selling and advertising methods; arranging introductions with buyers and agents; providing reports on the standing of overseas firms; advice and assistance to business visitors; helping to organize and carry through trade missions, trade displays, newspaper supplements and other promotion and publicity media; providing information on import duties, import licensing, economic conditions, quarantine and sanitary requirements, and other factors affecting the entry and sale of goods; helping to attract desirable investment.

In some countries Trade Commissioners also participate in inter-governmental negotiations in the economic and commercial fields. In certain countries where there is no diplomatic or consular mission he is called upon to act as the Australian representative.

Trade Commissioners usually enter the Service from either private enterprise or the public service, and applications for entry into the Service are called for periodically by public advertisement. In the more important posts the Trade Commissioner is supported by an Assistant Trade Commissioner, who normally qualifies at a later stage for appointment as a Trade Commissioner.

The Trade Commissioner Service is administered by the Commonwealth Department of Trade and Industry (as distinct from the diplomatic and consular services administered by the Department of External Affairs), but in countries where there is an Australian diplomatic or consular mission it is the practice for Trade Commissioners to be attached to the mission and to hold an appropriate diplomatic or consular rank (Commercial Counsellor, Commercial Secretary or Commercial Attaché).

The overseas trade representation is shown in the chapter International Relations.

Trade Missions

Since 1954 the Australian Government has sent a number of Trade Missions abroad as part of the campaign to increase exports, and the experience acquired has indicated the need to vary the technique to suit particular products or markets. At present the following two trade mission techniques are in use.

Survey mission. This is organized to obtain precise knowledge about trade potential for specific products in an overseas market. This method is adopted for new or developing areas where commercial intelligence is not readily available or where a complex industry is involved and requires technical knowledge. Ten such missions have been organized to date.

Specialized selling mission. The approach is to organize a specific industry or group of industries to participate in a planned selling campaign in overseas markets with known sales potential. The group visits the market, exhibits and publicizes its products and negotiates sales. Two specialized selling missions have been organized in recent years.

Surveys and selling missions have developed from the general trade missions of the past which comprised members with a wide variety of interests and objectives. In addition to the missions mentioned above, Australia since 1954 has sent overseas fifteen general trade missions and five trade ships.

Further details on Trade Missions are included in Year Book No. 49, page 544.

Export Payments Insurance Corporation

The *Export Payments Insurance Corporation Act 1956* established the Corporation with the objective of protecting Australian exporters against risks of loss arising from non-payment of their overseas accounts for goods and certain services. The Corporation is charged to be self-supporting and operates on principles similar to those of any other form of insurance. There is, however, no overlap with normal insurance facilities, since the Corporation does not cover risks which can normally be insured with commercial insurers. The main risks of loss against which the Corporation insures are the 'commercial' risks of the insolvency or protracted default of the buyer, and 'political' risks. The cover for 'commercial' risks is a maximum of 90 per cent, and the cover on 'political' risks a maximum of 90 per cent for the amount of loss in the pre-shipment period and a maximum of 95 per cent in the post-shipment period.

The initial capital of the Corporation was £500,000 (\$1,000,000) and the maximum contingent liability limit for contracts of insurance issued to exporters, £25,000,000 (\$50,000,000). Increasing demand on the part of Australian exporters for the facilities offered by the corporation has led to periodic revisions of these limits, which currently stand at \$4,000,000 and \$150,000,000 respectively.

Further information on the Corporation is contained in Year Book No. 49, page 544. For particulars of its operations see the chapter Private Finance.

Collection and presentation of statistics

Source of statistics

Overseas trade statistics are compiled from documents obtained under the *Customs Act 1965* and supplied to the Commonwealth Bureau of Census and Statistics by the Department of Customs and Excise.

Scope of statistics

All goods moving into or out of Australia are recorded in overseas trade statistics except those listed below. The statistics are not confined to goods which are the subject of a commercial transaction. The area to which all overseas trade statistics issued by this Bureau apply is the whole of the Commonwealth of Australia, comprising the States of New South Wales, Victoria, Queensland, South Australia, Western Australia and Tasmania, the Northern Territory and the Australian Capital Territory. Non-contiguous territories under Australian administration are treated as outside countries, and trade transactions between Australia and those non-contiguous territories are part of the overseas trade of Australia. Such transactions are shown separately, i.e. the trade of Australia with each particular area is separately recorded and tabulated.

The following items are *not included* in overseas trade statistics: vehicles engaged in the transport of passengers or goods between countries; bunkers and stores supplied to overseas vessels and aircraft in Australia; direct transit trade, i.e. goods being transhipped or moved through Australia for purposes of transport only; ships and aircraft for use on overseas routes; fish and other sea products landed abroad directly from the high seas by Australian vessels; uranium; those parcels post exports for which customs entries are not submitted; and certain materials for inter-governmental defence projects for which customs entries are not required.

Prior to 1906 bunkers and stores supplied to overseas vessels and aircraft were included in exports, but since then they have been excluded. The value of these stores shipped each year since 1960-61 is shown on page 423. Outside packages (containers, crates, etc.) are included as a separate item in the tabulation of imports, but they have only been fully classified by country of origin since 1950-51. The value of each export item includes the value of outside packages.

Presentation of statistics

Statistics of the inward flow of goods are recorded and published in two forms: *imports cleared for home consumption* and *imports*. *Imports cleared for home consumption* comprise goods which enter Australia directly for domestic consumption (including transformation and repair) and goods withdrawn from customs warehouses. *Imports* comprise goods which enter Australia directly for domestic consumption together with goods imported into customs warehouses.

The outward flow of goods is divided into *domestic exports* and *re-exports*. *Domestic exports* are exports of Australian produce plus exports of foreign goods transformed by a manufacturing process in Australia. *Re-exports* comprise goods re-exported from customs storage warehouses and exports of 'nationalized goods' (foreign goods which have entered Australia for domestic consumption and have subsequently been re-exported without transformation).

Total recorded trade is divided into merchandise and non-merchandise trade. Prior to July 1965 merchandise trade consisted of all recorded trade less imports and exports of specie and gold and silver. In July 1965 merchandise trade was redefined in accordance with international

standards recommended by the United Nations. Since its redefinition merchandise trade includes, as far as possible, all goods which as a result of their movement add to or subtract from the material resources of the country. On this basis the following four categories of goods are treated as non-merchandise trade.

- (a) Goods consigned by governments to their armed forces and diplomatic representatives abroad. Essentially such goods remain a part of the national economy from which they are exported, and this movement, therefore, does not affect the level of national resources although it does affect the level of resources currently available for domestic use.
- (b) Goods whose movement can reasonably be expected to be reversed within a limited time.
- (c) Goods of little or no commercial value, including decorations, awards and samples.
- (d) Specie and gold. The movement of specie and gold, in general, changes monetary rather than material resources and is therefore not included in merchandise trade.

Periods covered by statistics

For Customs ports in the capital cities imports and exports are recorded statistically in the calendar month in which entries are passed by the Department of Customs and Excise. Normally this is within a few days of shipment overseas or discharge of cargoes, although delays do occur in the lodging of entries. For Customs ports other than those in the capital cities (i.e. 'outports') the 'statistical month' differs from the calendar month and generally consists of the period from the twenty-second day to the end of the preceding month plus the first three weeks of the calendar month. In effect, goods for which a customs entry is passed at an 'outport' after the twenty-first day of the month will generally be recorded in the statistics for the following month. During 1964-65 13 per cent of imports measured by value and 29 per cent of exports flowed through outports.

Oversea shipment of some major items is at times delayed by abnormal factors affecting sales, deliveries for export, or the loading of ships. Wool shipments in any financial year may be materially affected by the time spread of wool auctions, which normally end in July. The carry-over for shipment varies from year to year. New season's wheat normally becomes available from December onwards, and the quantity shipped in any financial year is affected by the timing of sales for export.

Since 1 July 1914 detailed trade statistics have been compiled for financial years (July to June). Prior to that details were compiled on a calendar year basis. A table is included on page 428 showing the total value of imports and exports for the calendar years 1961 to 1965.

Valuation

All values in oversea trade statistics are determined on a 'free on board (f.o.b.) port of shipment' basis. This means that all charges, in particular the cost of freight and insurance, incurred after the goods have been placed on board at the port of shipment for import or export are excluded. Only transport and service charges incurred, or usually incurred, in placing the goods on board at the port of shipment are included in the determination of trade values.

The procedure adopted to value imports and exports is as follows.

Exports. The recorded value of goods exported includes the cost of containers and outside packages and has been determined as from 1 July 1937 as follows.

- (a) Goods sold to oversea buyers before export are valued at the Australian f.o.b. port of shipment equivalent of the actual price at which the goods were sold.
- (b) Goods shipped on consignment are valued at the Australian f.o.b. port of shipment equivalent of the price paid for similar goods of Australian origin in the principal markets of the country to which they are dispatched for sale. An account of the bases of valuation in operation prior to 1 July 1937 is given on page 469 of Year Book No. 39.

Imports. The recorded value of goods imported is the amount on which duty is payable or would be payable if the duty were *ad valorem*. Value for duty is the f.o.b. port of shipment equivalent of either:

- (a) the actual price paid or to be paid by the Australian importer plus any special deduction (transactions value); or
- (b) 'the current domestic value' of the goods; whichever is the higher.

'Current domestic value', is defined as 'the amount for which the seller of the goods to the purchaser in Australia is selling or would be prepared to sell for cash, at the date of exportation of those goods, the same quantity of identically similar goods to any and every purchaser in the country of export for consumption in that country'.

The cost of containers and outside packages is excluded from the value of individual import items but is included as a separate item in the tabulation of imports.

Quantity data

Where quantities are shown they are generally, but not invariably, expressed in terms of the normal trade unit. Where 'cental' is used, the unit is equivalent to 100 lb. avoirdupois. Quantities are not tabulated in respect of statistical items for which there is no appropriate unit of quantity (for example a statistical item which covers a number of commodities that cannot be recorded under a uniform unit of quantity).

Commodity classification

Oversea trade statistics for years up to and including 1964-65 were compiled according to the Statistical Classification of Imports and Exports. This classification contained approximately 3,700 import items and 1,300 export items in 1964-65. From July 1965 imports have been classified according to the new *Australian Import Commodity Classification*. This classification is based on the Standard International Trade Classification, Revised—(S.I.T.C.)—which is closely related to the Brussels Tariff Nomenclature used in the new Australian Customs Tariff introduced on 1 July 1965.

Although the basis of the classification of exports remained unchanged for 1965-66, the export section of the Statistical Classification of Imports and Exports was published separately, with some minor revisions, as the *Australian Export Commodity Classification*. A new Australian Export Commodity Classification based on S.I.T.C. was introduced in July 1966.

Country classification

Imports. 'Country of origin' referred to in import tables means the country of production. Classification of imports according to country of shipment was discontinued after the year 1920-21. A brief account of the dual system of import classification by country operating prior to the year 1921-22 was given on page 500 of Year Book No. 51.

Exports. 'Country of consignment' referred to in export tables means the country to which goods were consigned so far as this can be determined at the time of export. Where the country of consignment is not determined at the time of export, goods are shown as exported 'For orders'.

Balance of trade and balance of payments

Balance of trade. Oversea trade statistics are compiled from information recorded in customs documents. The excess of exports or imports in recorded merchandise trade is not an accurate measure of the balance of trade. Imports and exports have to be adjusted for both valuation and coverage differences to provide estimates of the balance of trade as shown in the bulletin *Balance of Payments*. Imports are adjusted for the overall excess of recorded value for duty over the actual selling price to the importer. Imports and exports of goods for repair and return and the value of repairs are deducted; imports and exports of ships and aircraft for use on overseas routes, certain imports of defence equipment, and other trade items, for which customs entries are not required, are added.

Balance of payments. Estimates of the balance of trade do not measure Australia's total balance of payments which includes other transactions such as freight and insurance charges on imports, shipping expenditure in Australian ports, overseas travel, payments of profits and interest, and private and government borrowing overseas. Estimates of these transactions are contained in the bulletin *Balance of Payments* (see also page 435).

Pre-federation records

In the years preceding Federation each State recorded its trade independently, and in so doing did not distinguish other Australian States from foreign countries. The aggregation of the records of the several States is necessarily the only available means of ascertaining the trade of Australia for comparison with later years, but the results obtained may be subject to error, since past records of values and the direction of imports and exports were not on uniform lines. Imports and exports for years prior to Federation may be found in issues of the Year Book prior to No. 41. On the introduction of the *Customs Act* 1901 the methods of recording values were made uniform throughout the States.

Total overseas trade

Including gold

The following table shows the total trade (including gold) of Australia with overseas countries from 1901 to 1964-65. The period 1901 to 1955-56 has been divided into five-year periods, and the figures shown represent the annual averages for the periods specified. Figures for the individual years were published in earlier issues, but figures for imports in issues prior to No. 37 were expressed in British currency.

VALUE OF OVERSEA TRADE: AUSTRALIA, 1901 TO 1964-65
INCLUDING GOLD
(\$A f.o.b.)

Period	Imports	Exports	Total	Excess of exports (+) or imports (-)	Value per head of population		
					Imports	Exports	Total
	\$m	\$m	\$m	\$m	\$	\$	\$
Annual average—							
1901 to 1905 .	71	102	174	+ 31	18.2	26.2	44.4
1906 to 1910 .	94	(a)139	232	+ 45	22.0	32.6	54.6
1911 to 1915-16 .	133	149	282	+ 16	27.6	30.8	58.4
1916-17 to 1920-21 .	183	230	413	+ 47	34.8	43.8	78.6
1921-22 to 1925-26	249	269	518	+ 20	42.2	45.8	88.0
1926-27 to 1930-31	239	263	501	+ 24	37.2	41.0	78.2
1931-32 to 1935-36	148	242	390	+ 94	22.2	36.2	58.4
1936-37 to 1940-41	247	315	562	+ 68	35.6	45.4	81.0
1941-42 to 1945-46	423	328	751	- 95	58.2	44.8	103.0
1946-47 to 1950-51	899	1,143	2,041	+244	114.4	145.4	259.8
1951-52 to 1955-56	1,566	1,572	3,138	+ 7	175.6	176.4	352.0
Year—							
1955-56 . .	1,642	1,564	3,206	- 78	176.2	167.8	344.0
1956-57 . .	1,438	1,986	3,424	+548	150.8	208.4	359.2
1957-58 . .	1,584	1,636	3,220	+ 52	162.6	167.8	330.4
1958-59 . .	1,593	1,623	3,216	+ 30	160.0	163.0	323.0
1959-60 . .	1,854	1,875	3,730	+ 21	182.2	184.4	366.6
1960-61 . .	2,175	1,938	4,113	-237	209.2	186.4	395.6
1961-62 . .	1,769	2,155	3,924	+385	166.8	203.2	370.0
1962-63 . .	2,163	2,152	4,314	- 11	200.0	199.0	399.0
1963-64 . .	2,373	2,782	5,155	+410	215.2	252.4	467.6
1964-65 . .	2,905	2,651	5,556	-253	258.2	235.7	493.9

(a) Prior to 1906, ships' stores were included in exports. For the value of such goods shipped on overseas vessels and aircraft during each of the years 1960-61 to 1964-65 see page 423.

Plate 32 shows the overseas trade of Australia from 1946-47 to 1964-65.

Excluding gold

The following table shows particulars of merchandise trade (including silver and bronze as merchandise), from which *all* gold movements have been excluded.

VALUE OF OVERSEA TRADE: AUSTRALIA, 1960-61 TO 1964-65
EXCLUDING GOLD
(\$A f.o.b.)

Year	Imports	Exports	Total	Value per head of population		
				Imports	Exports	Total
	\$m	\$m	\$m	\$	\$	\$
1960-61 . .	2,171	1,858	4,029	209.0	178.8	387.8
1961-62 . .	1,765	2,137	3,902	166.4	201.4	367.8
1962-63 . .	2,158	2,139	4,297	199.6	197.8	397.4
1963-64 . .	2,368	2,768	5,136	214.8	251.0	465.8
1964-65 . .	2,901	2,633	5,534	257.9	234.1	492.0

Direction of oversea trade

According to countries

The following table shows the value of Australian imports and exports during each of the years 1962-63 to 1964-65 according to country of origin and consignment respectively.

VALUES OF AUSTRALIAN IMPORTS AND EXPORTS, BY COUNTRY OF ORIGIN
OR CONSIGNMENT, 1962-63 TO 1964-65

EXCLUDING GOLD

\$A'000 f.o.b.)

Country	Imports			Exports		
	1962-63	1963-64	1964-65	1962-63	1963-64	1964-65
Commonwealth countries—						
United Kingdom	658,384	659,068	761,411	401,554	511,976	516,226
Australian Territories	21,976	26,074	29,632	44,130	56,050	65,637
Canada	91,822	95,872	117,006	38,102	50,390	39,914
Ceylon	17,068	17,158	17,277	12,910	14,314	18,671
Hong Kong	15,254	18,826	24,414	27,914	36,164	36,616
India	36,146	34,610	40,909	37,220	35,434	55,400
Malaysia	27,276	25,282	52,322	26,524	28,836	82,917
New Zealand	34,948	44,716	46,357	131,132	166,120	158,050
Singapore	6,836	6,830	(a)	33,694	36,996	(a)
Other Commonwealth countries	60,782	71,734	62,726	71,040	78,680	82,044
<i>Total, Commonwealth countries</i>	<i>970,492</i>	<i>1,000,170</i>	<i>1,152,054</i>	<i>824,220</i>	<i>1,014,960</i>	<i>1,055,475</i>
Foreign countries—						
Arabian States	87,612	88,160	104,118	11,418	12,536	14,054
Belgium-Luxembourg	13,996	16,754	24,880	46,372	59,776	59,514
China (Mainland)	11,256	16,356	22,862	129,288	168,190	135,633
France	35,556	40,058	66,903	105,970	137,570	111,781
Germany, Federal Republic of	117,320	130,766	160,999	68,368	91,846	83,837
Indonesia	58,026	55,438	64,034	5,232	9,648	7,431
Iran	38,464	37,704	26,698	3,814	5,028	18,449
Italy	39,064	40,158	50,511	88,056	108,624	85,190
Japan	129,378	162,468	258,574	346,166	487,810	440,740
Netherlands	27,472	31,130	36,762	14,340	15,854	20,702
Sweden	35,824	45,618	53,568	6,534	5,366	8,584
United States of America	460,092	542,490	692,242	265,796	280,788	264,190
U.S.S.R.	1,056	1,850	2,167	29,232	114,132	76,441
Other foreign countries	129,986	155,176	178,122	178,674	237,254	243,564
<i>Total, foreign countries</i>	<i>1,185,102</i>	<i>1,364,126</i>	<i>1,742,440</i>	<i>1,299,260</i>	<i>1,734,422</i>	<i>1,570,110</i>
Country unknown	2,126	3,766	6,075	15,392	18,788	7,460
Total	2,157,720	2,368,062	2,900,569	2,138,872	2,768,170	2,633,045

(a) Included in Malaysia.

The following table expresses the values shown in the preceding table as percentages of total imports or exports.

VALUES OF AUSTRALIAN IMPORTS AND EXPORTS: PROPORTIONS, BY
COUNTRY OF ORIGIN OR CONSIGNMENT, 1962-63 TO 1964-65

EXCLUDING GOLD

(Per cent of total)

Country	Imports			Exports		
	1962-63	1963-64	1964-65	1962-63	1963-64	1964-65
Commonwealth countries—						
United Kingdom	30.51	27.83	26.25	18.77	18.50	19.60
Australian Territories	1.02	1.10	1.02	2.06	2.02	2.49
Canada	4.26	4.05	4.03	1.78	1.82	1.52
Ceylon	0.79	0.72	0.59	0.60	0.52	0.71
Hong Kong	0.71	0.79	0.84	1.31	1.31	1.39
India	1.68	1.46	1.41	1.74	1.28	2.10
Malaysia	1.26	1.07	1.80	1.24	1.04	3.15
New Zealand	1.62	1.89	1.59	6.13	6.00	6.00
Singapore	0.32	0.29	(a)	1.58	1.34	(a)
Other Commonwealth countries	2.81	3.04	2.19	3.32	2.83	3.13
<i>Total, Commonwealth countries</i>	<i>44.98</i>	<i>42.24</i>	<i>39.72</i>	<i>38.53</i>	<i>36.66</i>	<i>40.09</i>
Foreign countries—						
Arabian States	4.06	3.72	3.59	0.53	0.45	0.53
Belgium-Luxembourg	0.65	0.71	0.86	2.17	2.16	2.26
China (Mainland)	0.52	0.69	0.78	6.04	6.08	5.15
France	1.65	1.69	2.31	4.95	4.97	4.24
Germany, Federal Republic of	5.44	5.52	5.55	3.20	3.32	3.18
Indonesia	2.69	2.34	2.20	0.24	0.35	0.28
Iran	1.78	1.59	0.92	0.18	0.18	0.70
Italy	1.81	1.70	1.74	4.12	3.92	3.23
Japan	6.00	6.86	8.91	16.18	17.62	16.73
Netherlands	1.27	1.31	1.26	0.67	0.57	0.78
Sweden	1.66	1.93	1.84	0.31	0.19	0.32
United States of America	21.32	22.91	23.87	12.43	10.14	10.03
U.S.S.R.	0.05	0.08	0.74	1.34	4.12	2.90
Other foreign countries	6.02	6.55	5.51	8.39	8.59	9.30
<i>Total, foreign countries</i>	<i>54.92</i>	<i>57.60</i>	<i>60.08</i>	<i>60.75</i>	<i>62.66</i>	<i>59.63</i>
Country unknown	0.10	0.16	0.20	0.72	0.68	0.28
Total	100.00	100.00	100.00	100.00	100.00	100.00

(a) Included in Malaysia.

According to major groups of countries

The following table shows the major groups of countries referred to in the tables on pages 410-11 and 439-40.

COUNTRIES INCLUDED IN MAJOR GROUPS

Sterling area	Non-sterling countries	
United Kingdom British Pacific Islands, West Indies, Hong Kong and other British colonies and dependencies (excluding New Hebrides)	North America— Canada United States of America and dependencies European Economic Community(a)— Belgium-Luxembourg France Germany, Federal Republic of Greece Italy Netherlands (excluding dependencies) European Free Trade Association (other than the United Kingdom)(a)— Austria Denmark Finland Norway Portugal Sweden Switzerland Eastern Europe, China (Mainland), etc.— Albania Bulgaria Czechoslovakia Germany (East) Hungary Poland	Eastern Europe, China (Mainland), etc.— <i>continued</i> Romania Union of Soviet Socialist Republics China (Mainland) Korea (North) Vietnam (North)
Australia and Territories (including Papua and New Guinea) Ceylon Ghana India Malaysia, Federation of (Malaya, Sabah, Sarawak and Singapore) New Zealand and dependencies Pakistan Rhodesia and Malawi Other Commonwealth countries Arabian States of Bahrain, Kuwait, Qatar, and Trucial States Burma Iceland Ireland Jordan Libya South Africa		Principal other countries— Argentina Brazil China, Republic of (Formosa) Indonesia Iran Iraq Japan Korea, Republic of Mexico Netherlands dependencies Peru Philippines Spain Saudi Arabia Thailand Turkey United Arab Republic Venezuela Yugoslavia

(a) Includes dependent territories, associated communities, etc., unless otherwise stated.

The following table shows the trade of Australia with the major groups of countries shown above during the years 1963-64 and 1964-65. Particulars of Australia's balance of payments with countries in these groups are shown on pages 439-40.

VALUE OF TRADE OF AUSTRALIA, BY MAJOR GROUPS OF COUNTRIES, 1963-64 AND 1964-65

INCLUDING GOLD
(\$A'000 f.o.b.)

Major groups of countries	1963-64	1964-65
STERLING AREA		
Imports—		
From—United Kingdom	659,068	761,412
Other countries	315,392	348,256
Total	974,460	1,109,668
Exports—		
To—United Kingdom	511,988	516,226
Other countries	497,416	553,968
Total	1,009,404	1,070,194
Excess of exports (+) or imports (–)	+34,944	–39,474

VALUE OF TRADE OF AUSTRALIA, BY MAJOR GROUPS OF
COUNTRIES—*continued*

INCLUDING GOLD

(\$A'000 f.o.b.)

Major groups of countries	1963-64	1964-65
NON-STERLING COUNTRIES—NORTH AMERICA		
Imports—		
From—Canada	95,872	117,006
United States of America(a)	542,526	692,356
Total	638,398	809,362
Exports—		
To—Canada	50,390	39,914
United States of America(a)	285,154	268,440
Total	335,544	308,354
Excess of exports (+) or imports (—)	—302,854	—501,008
OTHER NON-STERLING COUNTRIES		
Imports—		
From—European Economic Community	262,862	345,235
European Free Trade Association(b)	114,904	133,584
Other countries—		
Eastern Europe, China (Mainland), etc.	30,088	46,469
Other	351,946	460,385
Total	759,800	985,673
Exports—		
To—European Economic Community	427,590	385,737
European Free Trade Association(b)	28,716	33,271
Other countries—		
Eastern Europe, China (Mainland), etc.	322,352	246,908
Other	658,854	606,985
Total	1,437,512	1,272,901
Excess of exports (+) or imports (—)	+677,712	+287,228
ALL GROUPS		
Total imports	2,372,658	2,904,703
Total exports	2,782,460	2,651,449
Excess of exports (+) or imports (—)	+409,802	—253,254

(a) Includes Alaska and Hawaiian Islands.

(b) Other than United Kingdom.

Trade with the United Kingdom

Statistical classes

The following table shows, according to statistical classes, the value of imports into Australia of United Kingdom origin and of exports from Australia to the United Kingdom during each of the years 1962-63 to 1964-65.

**VALUE OF TRADE OF AUSTRALIA WITH UNITED KINGDOM
BY STATISTICAL CLASS, 1962-63 TO 1964-65**

(\$'000 f.o.b.)

Class	Imports			Exports		
	1962-63	1963-64	1964-65	1962-63	1963-64	1964-65
I. Foodstuffs of animal origin, etc. . .	4,376	5,908	6,709	88,886	100,408	164,520
II. Foodstuffs of vegetable origin; non-alcoholic beverages, etc. . .	1,742	1,812	2,378	121,236	155,228	124,359
III. Alcoholic liquors, etc. . .	6,444	7,786	8,850	1,622	1,686	2,254
IV. Tobacco, etc. . .	980	1,018	1,240	..	..	44
V. Live animals and birds . . .	348	492	403	..	..	5
VI. Animal substances, etc. . .	2,214	2,336	2,653	118,762	160,714	116,670
VII. Vegetable substances, etc. . .	4,916	5,400	5,807	1,016	720	397
VIII. Apparel, textiles, etc. . .	57,888	54,314	61,607	514	826	441
IX. Oils, fats and waxes . . .	4,968	3,294	3,383	3,960	4,938	5,079
X. Pigments, paints and varnishes . .	7,426	5,690	5,920	..	..	60
XI. Rocks, minerals, etc. . .	1,600	1,682	1,573	11,478	15,072	21,084
XII. Metals, metal manufactures and machinery . . .	380,572	377,462	432,007	35,656	50,776	56,757
XIII. Rubber and leather, etc. . .	10,682	11,534	14,490	4,972	5,166	4,768
XIV. Wood and wicker, etc. . .	744	800	1,099	1,792	688	731
XV. Earthenware, etc. . .	17,876	16,596	18,428	..	..	28
XVI. Paper and stationery . . .	40,274	35,606	35,334	634	832	1,228
XVII. Jewellery, etc. . .	6,810	7,286	9,714	..	..	1,880
XVIII. Optical, surgical and scientific in- struments . . .	12,188	13,086	13,341	1,780	2,346	2,624
XIX. Chemicals, medicinal products, es- sential oils, fertilizers . . .	43,198	45,668	53,093	1,376	2,084	2,302
XX. Miscellaneous . . .	53,136	61,294	83,379	7,600	8,934	10,723
XXI. Gold and silver; bronze specie . .	80	4	4	344	1,570	272
Total . . .	658,462	659,068	761,412	401,628	511,988	516,226

Imports of principal articles

The following table shows the value of the principal articles imported into Australia from the United Kingdom during each of the years 1962-63 to 1964-65.

**VALUE OF IMPORTS OF PRINCIPAL ARTICLES OF UNITED KINGDOM ORIGIN
AUSTRALIA, 1962-63 TO 1964-65**

(\$'000 f.o.b.)

Article	1962-63	1963-64	1964-65	Article	1962-63	1963-64	1964-65
Aircraft and parts . . .	6,448	4,924	4,934	Optical, surgical and scienti- fic instruments . . .	8,888	9,062	9,082
Arms and ammunition, mili- tary, naval and air force stores . . .	4,820	7,424	6,832	Paper, printing . . .	4,982	3,746	1,602
Aluminium—				Paper, wrapping . . .	3,994	142	200
Plates, sheets, strips . . .	1,844	974	1,092	Piece-goods—			
Leaf and foil . . .	2,000	1,512	1,708	Cotton and linen . . .	8,656	7,952	8,650
Apparel . . .	5,704	6,060	6,543	Silk and rayon(a) . . .	1,628	2,252	2,541
Books, magazines, etc. . .	18,666	19,032	19,895	All other piece-goods . .	7,054	6,800	9,369
Carpets . . .	7,230	5,692	7,532	Plastic materials . . .	14,304	17,690	22,884
Chemicals, medicinal pro- ducts, essential oils and fertilizers . . .	43,198	45,668	53,092	Rubber and rubber manu- factures . . .	8,932	9,610	12,040
Crockery . . .	3,812	3,524	3,943	Sewing and other cottons, threads, etc. . .	4,106	4,482	4,787
Dyes . . .	3,742	3,554	3,592	Stationery and paper manu- factures . . .	24,590	26,066	27,404
Electrical machinery and appliances . . .	55,872	47,008	51,261	Tools of trade . . .	4,086	3,934	4,719
Glass and glassware . . .	7,950	6,876	7,967	Vehicles, parts and acces- sories . . .	113,476	112,478	124,164
Iron and steel—				Vessels (ships), including parts . . .	1,708	1,536	295
Plate and sheet . . .	6,982	7,054	5,889	Whisky . . .	5,984	7,246	8,358
Other . . .	11,716	12,840	18,763	Yarns—			
Linoleums . . .	3,788	3,394	3,402	Cotton . . .	2,982	1,728	2,168
Machines and machinery (except dynamo elec- trical)—				Rayon . . .	8,486	8,256	8,514
Agricultural . . .	1,856	2,124	3,211	Other . . .	1,496	1,428	1,649
Metal-working . . .	12,380	11,788	17,840	All other articles(b) . .	103,724	106,874	121,580
Motive-power . . .	50,404	59,068	59,441				
Other . . .	80,974	79,270	114,469	Total . . .	658,462	659,068	761,412

(a) Includes tyre cord fabric.

(b) Includes outside packages.

Exports of principal articles of Australian produce

The following table shows the quantities and values of the principal articles of Australian produce exported to the United Kingdom during each of the years 1962-63 to 1964-65.

**EXPORTS OF PRINCIPAL ARTICLES OF AUSTRALIAN PRODUCE TO
THE UNITED KINGDOM, 1962-63 TO 1964-65**

Article	Quantity			Value (\$A'000 f.o.b.)		
	1962-63	1963-64	1964-65	1962-63	1963-64	1964-65
Butter tons	65,094	74,361	75,695	38,652	44,676	49,655
Cheese "	13,632	13,059	16,061	5,366	5,236	7,183
Eggs "				3,072	1,716	3,108
Fruit, dried tons	29,943	28,206	28,118	8,796	9,684	9,592
" fresh '000 bus.	4,407	5,050	4,986	14,096	14,982	15,183
" preserved in airtight containers tons	65,834	106,861	43,696	18,086	28,592	20,834
Gold . . . . . "	..	..	..	74	12	..
Grains and cereals—						
Barley tons	66,232	112,467	38,114	2,926	4,924	1,781
Flour (wheaten), plain white tons(a)	66,641	48,743	45,563	2,940	2,888	2,759
Wheat tons	437,073	753,923	512,470	23,606	40,376	26,698
Other . . . . . "	..	..	..	4,424	2,310	3,044
Hides and skins "				4,042	6,332	5,277
Lead bullion tons	59,645	60,715	36,275	9,958	13,452	12,196
" pig "	80,228	76,631	83,565	10,184	13,358	24,061
Leather . . . . . "	..	..	..	4,656	4,630	4,169
Meats preserved by cold process—						
Beef and veal tons	26,695	36,961	107,027	11,800	20,860	64,847
Lamb "	16,655	13,005	17,052	5,930	4,982	7,051
Mutton "	6,852	5,350	11,617	2,476	1,636	5,053
Rabbit and hare "				3,116	3,204	3,338
Meats, tinned tons	10,461	10,119	13,777	6,138	5,334	7,637
Milk and cream '000 lb.	6,640	8,691	9,048	844	1,202	1,414
Silver bullion '000 fine oz.	231	1,336	217	256	1,540	251
Sugar (cane) tons	437,769	422,058	402,861	44,206	49,496	42,722
Tallow, inedible "	10,006	10,568	16,135	1,024	1,228	2,488
Timber, undressed(b) '000 super ft.	1,912	950	1,143	274	136	176
Wine, fermented '000 gals.	1,104	1,054	1,412	1,562	1,610	2,127
Wool '000 lb.	222,585	247,586	206,309	114,004	153,528	110,015
Zinc bars, etc. tons	22,193	21,750	27,094	3,470	4,488	7,735
All other articles . . . . . "	..	..	..	48,818	61,556	63,089
Total . . . . .	..	..	..	394,796	503,968	503,483

(a) 2,000 lb. (b) Excludes railway sleepers.

Imports from the United Kingdom and competing countries

Since 1908, permanent resident Commissioners appointed by the British Board of Trade have been located in Australia for the purpose of advising manufacturers and merchants in the United Kingdom with regard to Australian trade affairs. From 8 August 1907 the Commonwealth Customs Tariffs have provided preferential rates of customs duties on certain goods the produce or manufacture of the United Kingdom, with the object of assisting the British manufacturer to retain or improve his position in this market in relation to other countries. The main provisions in these Acts relating to preference are dealt with on pages 397-8 in this chapter.

In an investigation into the relative position occupied by the United Kingdom in the import trade of Australia, the comparison must, of course, be restricted to those classes of goods which are produced or manufactured in the United Kingdom. Imports into Australia include many commodities, such as tea, rice, raw coffee, unmanufactured tobacco, petroleum products, copra, timber, etc., which the United Kingdom cannot supply. These items, in addition to others not available from that country, have therefore been omitted from the following table.

The imports into Australia have been classified under nine headings, and the trade of the United Kingdom therein is compared with that of France, the Federal Republic of Germany, Japan, and the United States of America. These countries have been selected as being, in normal times, the principal competitors with the United Kingdom for the trade of Australia under the specified headings. Totals for each of the years 1962-63 to 1964-65 are shown in the following table.

**VALUE OF IMPORTS FROM THE UNITED KINGDOM AND ITS MAIN
COMPETITORS: AUSTRALIA, 1962-63 TO 1964-65**

(\$A'000 f.o.b.)

Nature of imports	Year	United Kingdom	France	Federal Republic of Germany	Japan	United States of America	All countries
Foodstuffs of animal origin	{ 1962-63	4,376	24	588	4,374	1,816	24,682
	{ 1963-64	5,908	..	902	4,780	1,480	29,698
	{ 1964-65	6,709	48	672	5,727	1,521	31,319
Yarns and manufactured fibres, textiles and apparel	{ 1962-63	57,888	4,478	5,946	56,238	24,694	233,300
	{ 1963-64	54,314	4,102	5,606	57,216	21,642	233,996
	{ 1964-65	61,607	4,538	6,363	69,371	22,463	272,122
Metals, metal manufactures and machinery	{ 1962-63	380,572	18,916	66,988	29,858	239,272	850,122
	{ 1963-64	377,462	22,192	74,698	49,128	295,386	947,308
	{ 1964-65	432,007	42,789	97,947	110,201	412,850	1,275,176
Rubber and leather and manufactures thereof, and substitutes therefor	{ 1962-63	10,682	1,104	1,050	1,862	9,920	46,670
	{ 1963-64	11,534	2,146	806	..	11,050	51,160
	{ 1964-65	14,490	2,704	1,102	5,600	15,464	66,305
Earthenware, cement, china, glass and stoneware	{ 1962-63	17,876	1,578	1,866	6,494	4,996	40,438
	{ 1963-64	16,596	1,348	2,028	7,390	5,972	40,718
	{ 1964-65	18,428	1,811	2,495	9,446	6,931	47,325
Pulp, paper and board, paper manufactures and stationery	{ 1962-63	40,274	922	2,626	3,514	26,712	133,466
	{ 1963-64	35,606	734	3,050	3,630	24,516	141,664
	{ 1964-65	35,334	758	3,250	4,931	28,427	156,493
Sporting material, toys, fancy goods, jewellery and timepieces	{ 1962-63	6,810	480	2,788	4,602	1,896	28,308
	{ 1963-64	7,286	472	2,576	4,834	1,784	29,990
	{ 1964-65	9,714	438	3,075	6,097	2,468	37,329
Optical, surgical and scientific instruments, etc.; photographic goods, n.e.i.	{ 1962-63	12,188	376	5,602	4,098	10,754	37,426
	{ 1963-64	13,086	456	5,910	4,522	13,618	43,280
	{ 1964-65	13,341	767	6,799	6,040	15,645	49,260
Chemical, medicinal and pharmaceutical products, essential oils and fertilizers	{ 1962-63	43,198	3,632	14,584	4,342	41,234	142,462
	{ 1963-64	45,668	3,628	16,026	9,710	50,226	163,374
	{ 1964-65	53,093	3,917	16,753	7,749	56,494	184,720
<i>Total competitive imports</i>	{ 1962-63	573,864	31,510	102,038	115,382	361,294	1,536,874
	{ 1963-64	567,460	35,078	111,602	141,210	425,674	1,681,188
	{ 1964-65	644,723	57,770	138,456	225,162	562,263	2,120,049
Total imports (less bullion and specie)(a)	{ 1962-63	658,382	35,556	117,320	129,378	460,052	2,157,554
	{ 1963-64	659,062	39,882	130,766	162,468	542,446	2,367,874
	{ 1964-65	761,408	66,903	160,999	258,557	692,235	2,900,405

(a) Includes outside packages.

The following table shows the proportions of the several classes of goods shown in the previous table imported from each country during the year 1964-65.

**VALUE OF IMPORTS FROM THE UNITED KINGDOM AND ITS MAIN
COMPETITORS: PROPORTIONS, AUSTRALIA, 1964-65**

(Per cent)

Nature of imports	United Kingdom	France	Federal Republic of Germany	Japan	United States of America	Other countries	All countries
Foodstuffs of animal origin	21.4	..	2.5	18.2	4.8	53.1	100.0
Yarns and manufactured fibres, textiles and apparel	22.6	1.7	2.3	25.5	8.3	39.6	100.0
Metals, metal manufactures and machinery	33.9	3.3	7.6	8.6	32.3	14.3	100.0
Rubber and leather and manufactures thereof, and substitutes therefor	21.8	4.0	1.6	8.4	23.3	40.9	100.0
Earthenware, cement, china, glass and stone-ware	38.9	3.8	5.2	19.9	14.6	17.6	100.0
Pulp, paper and board; paper manufactures and stationery	22.6	0.5	2.0	3.1	18.1	53.7	100.0
Sporting, material, toys, fancy goods, jewellery and timepieces	26.0	1.1	8.2	16.3	6.6	41.8	100.0
Optical, surgical and scientific instruments, etc.; photographic goods, n.e.i.	27.0	1.5	13.8	12.3	31.8	13.6	100.0
Chemical, medicinal and pharmaceutical products, essential oils and fertilizers	28.7	2.1	9.1	4.2	30.6	25.3	100.0
<i>Total competitive imports</i>	<i>30.4</i>	<i>2.7</i>	<i>6.5</i>	<i>10.6</i>	<i>26.5</i>	<i>23.3</i>	<i>100.0</i>
Total imports (less bullion and specie)(a)	26.2	2.3	5.5	8.9	23.8	33.3	100.0

(a) Includes outside packages.

The following table shows comparisons of the proportions of the several countries for competitive imports and for total imports for each of the years 1962-63 to 1964-65.

**VALUE OF IMPORTS FROM THE UNITED KINGDOM AND ITS MAIN
COMPETITORS: PROPORTIONS, AUSTRALIA, 1962-63 TO 1964-65**

(Per cent)

Nature of imports	Year	United Kingdom	France	Federal Republic of Germany	Japan	United States of America	Other countries	All countries
Total competitive imports	1962-63	37.3	2.1	6.6	7.5	23.5	23.0	100.0
	1963-64	33.8	2.1	6.6	8.4	25.3	23.8	100.0
	1964-65	30.4	2.7	6.5	10.6	26.5	23.3	100.0
Total imports (less bullion and specie) (a)	1962-63	30.5	1.6	5.4	6.0	21.3	35.2	100.0
	1963-64	27.8	1.7	5.5	6.9	22.9	35.2	100.0
	1964-65	26.2	2.3	5.5	8.9	23.8	33.3	100.0

(a) Includes outside packages.

Trade with eastern countries

Merchandise trade according to countries

The values of imports from, and exports to, eastern countries during the years 1962-63 to 1964-65 are shown in the following table.

**VALUE OF MERCHANDISE TRADE OF AUSTRALIA WITH EASTERN COUNTRIES
BY COUNTRY OF ORIGIN OR CONSIGNMENT: 1962-63 TO 1964-65**

(\$'000 f.o.b.)

Country	Imports(a)			Exports		
	1962-63	1963-64	1964-65	1962-63	1963-64	1964-65
Commonwealth countries—						
Brunei	17,532	14,028	7,232	3,376	3,394	125
Ceylon	17,068	17,158	17,277	12,910	14,314	18,671
Hong Kong	15,254	18,826	24,414	27,914	36,164	36,613
India	36,146	34,610	40,909	37,220	35,434	55,400
Malaysia	27,276	25,282	52,322	26,524	28,836	82,917
Pakistan	11,428	13,960	13,188	14,116	8,028	9,274
Singapore	6,836	6,830	(b)	33,694	36,996	(b)
Foreign countries—						
Burma	128	154	72	6,470	5,582	5,114
Cambodia	6	6	2	114	84	296
China, Republic of (Formosa)	1,148	2,868	4,355	4,056	7,252	8,137
China (Mainland)	11,256	16,356	22,862	129,288	168,190	135,633
Indonesia	58,026	55,438	64,034	5,232	9,648	7,431
Japan	129,378	162,468	258,574	346,166	487,810	440,740
Korea, Republic of	412	798	774	6,364	6,450	3,972
Korea (North)	14	96	86	2,380	2,298	2,305
Laos . . . . .	..	..	16	34	50	2
Nepal	34	8	14	..	2	2
Philippines	1,518	2,140	3,242	12,486	20,734	20,920
Portuguese Dependencies—						
Macao	32	80	85	16	10	18
Timor	40	4	..	112	284	208
Thailand	868	986	1,139	7,408	10,244	13,855
Vietnam, Republic of	34	42	49	2,410	1,488	2,617
Vietnam (North) . . . . .	..	..	1	328	18	155
Total	334,434	372,138	510,647	678,618	883,310	844,405

(a) Includes outside packages.

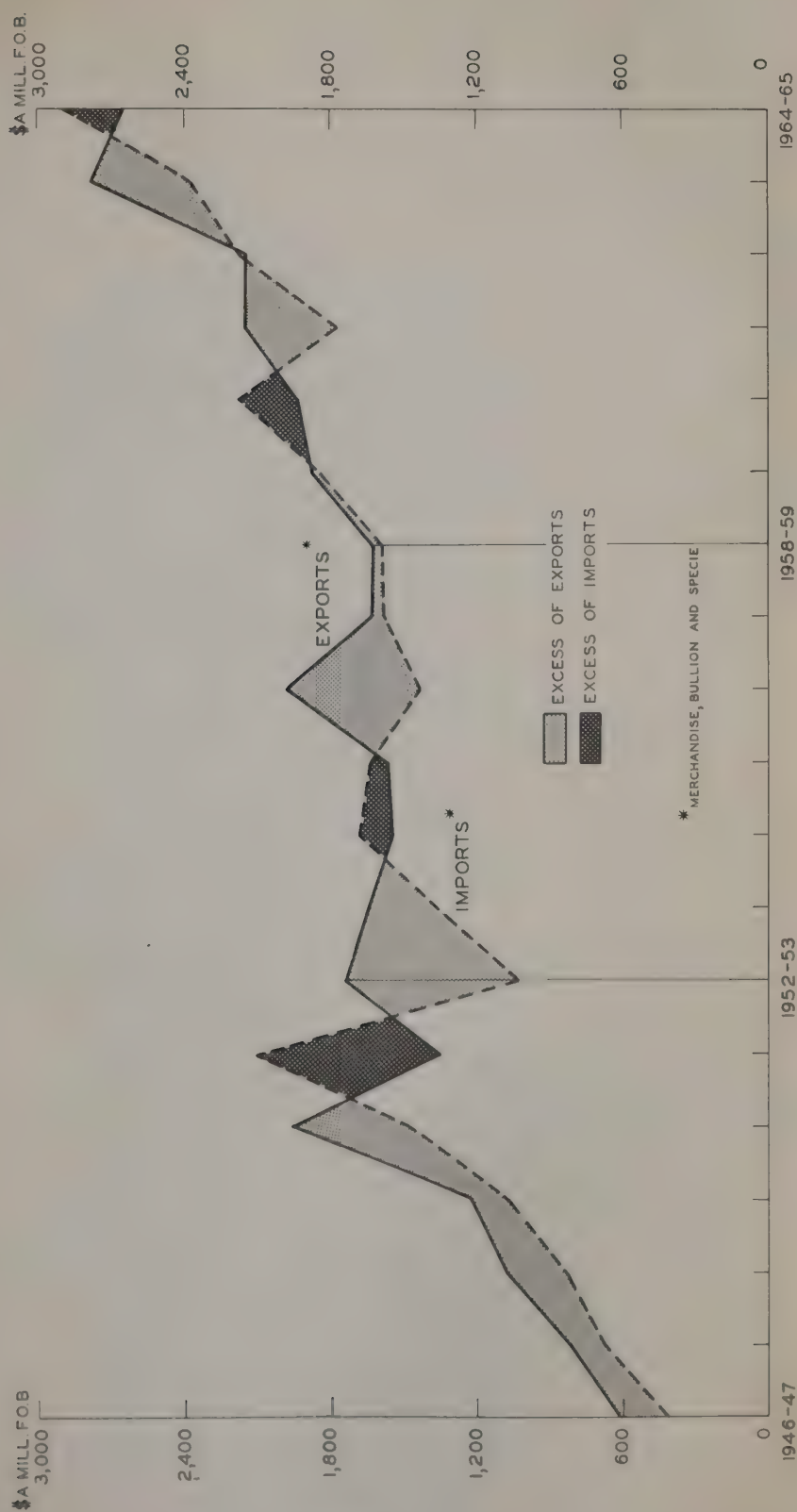
(b) Included with Malaysia.

Plate 37 shows the trade between Australia and eastern countries during 1964-65.

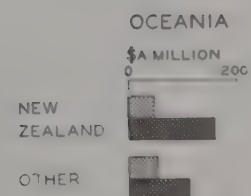
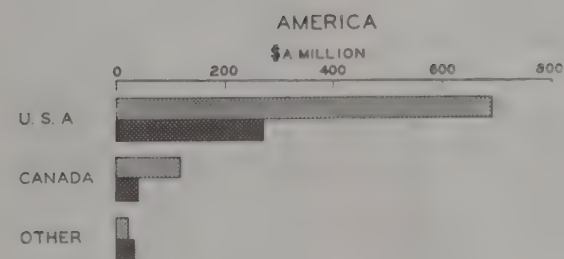
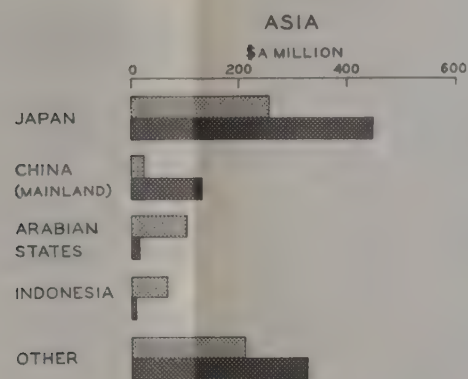
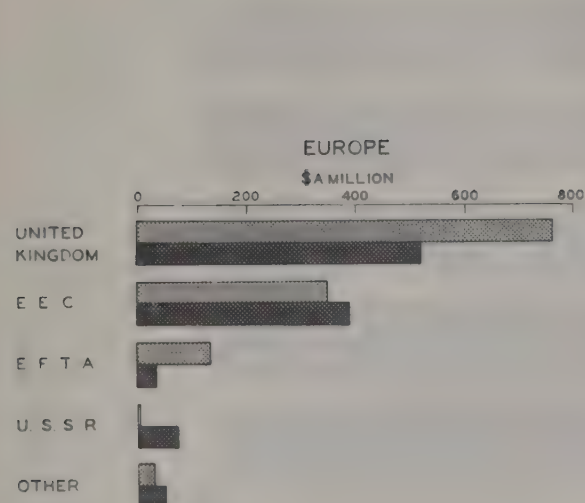
Merchandise trade—principal articles

The following table shows the value of merchandise trade between Australia and eastern countries for each of the years 1962-63 to 1964-65. The countries concerned in this trade are listed in the previous table.

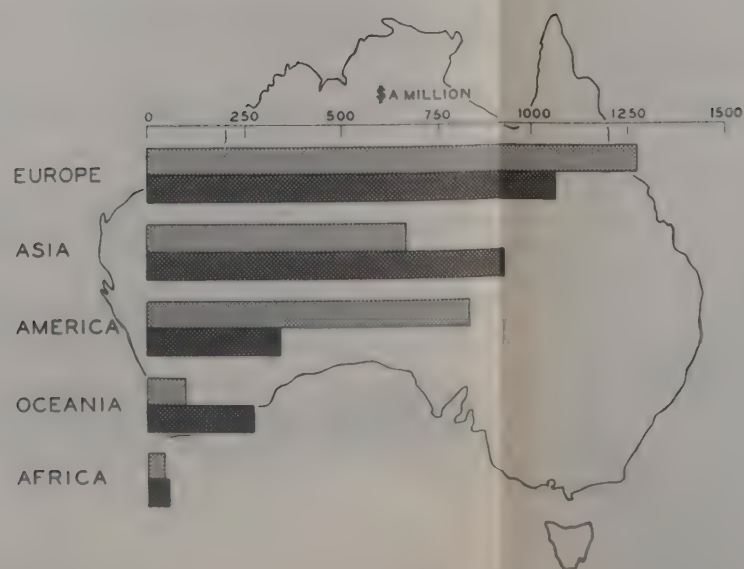
OVERSEA TRADE: AUSTRALIA, 1946-47 TO 1964-65



OVERSEA TRADE: MAJOR GROUPS OF COUNTRIES AUSTRALIA, 1964-65



TOTAL EXPORTS (F.O.B.)
\$A 2,651.4 MILLION



TOTAL IMPORTS (F.O.B.)
\$A 2,904.7 MILLION

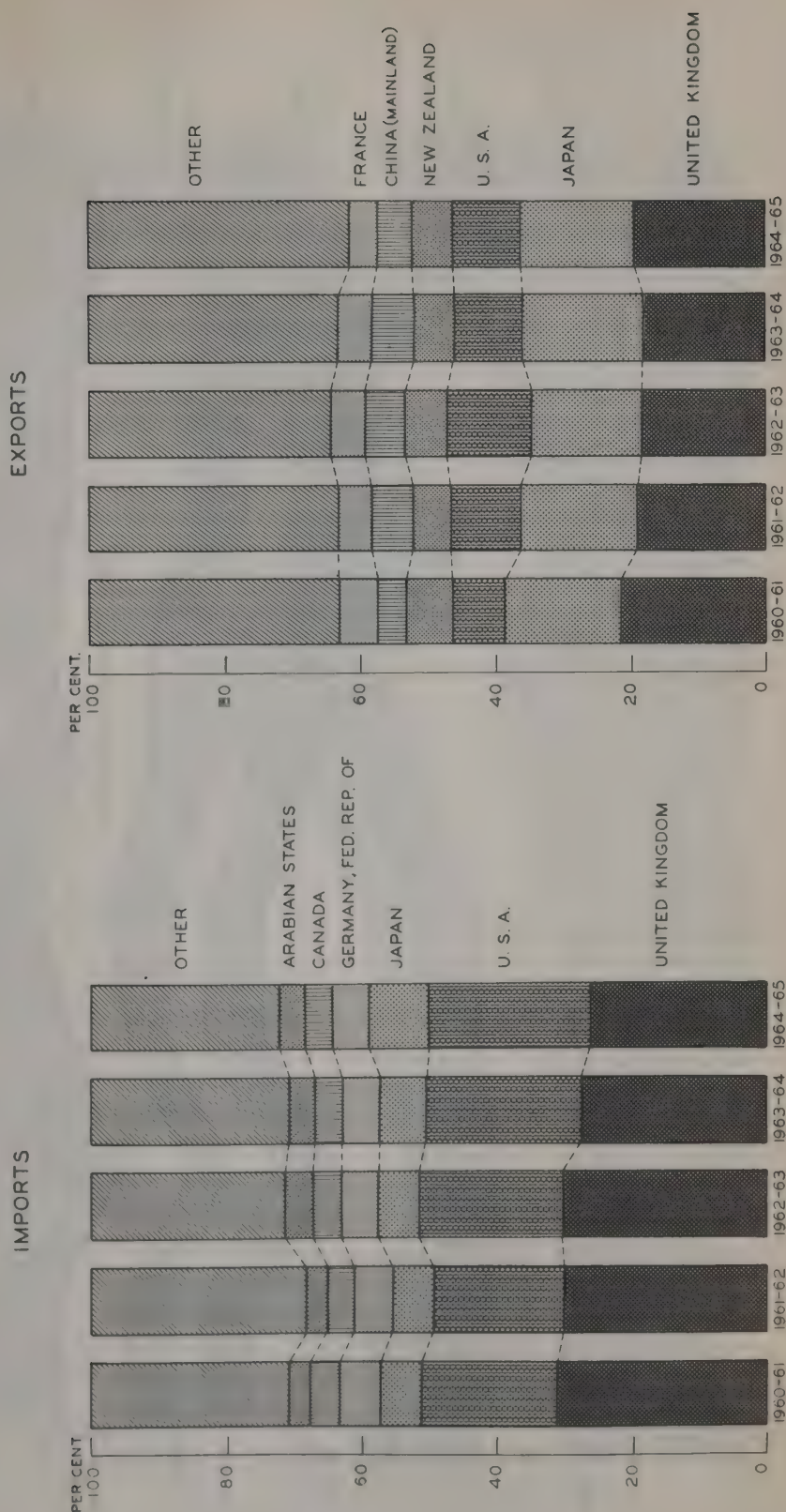
THE AMERICAN
JOURNAL



VALUES OF IMPORTS AND EXPORTS: PROPORTIONS BY COUNTRY

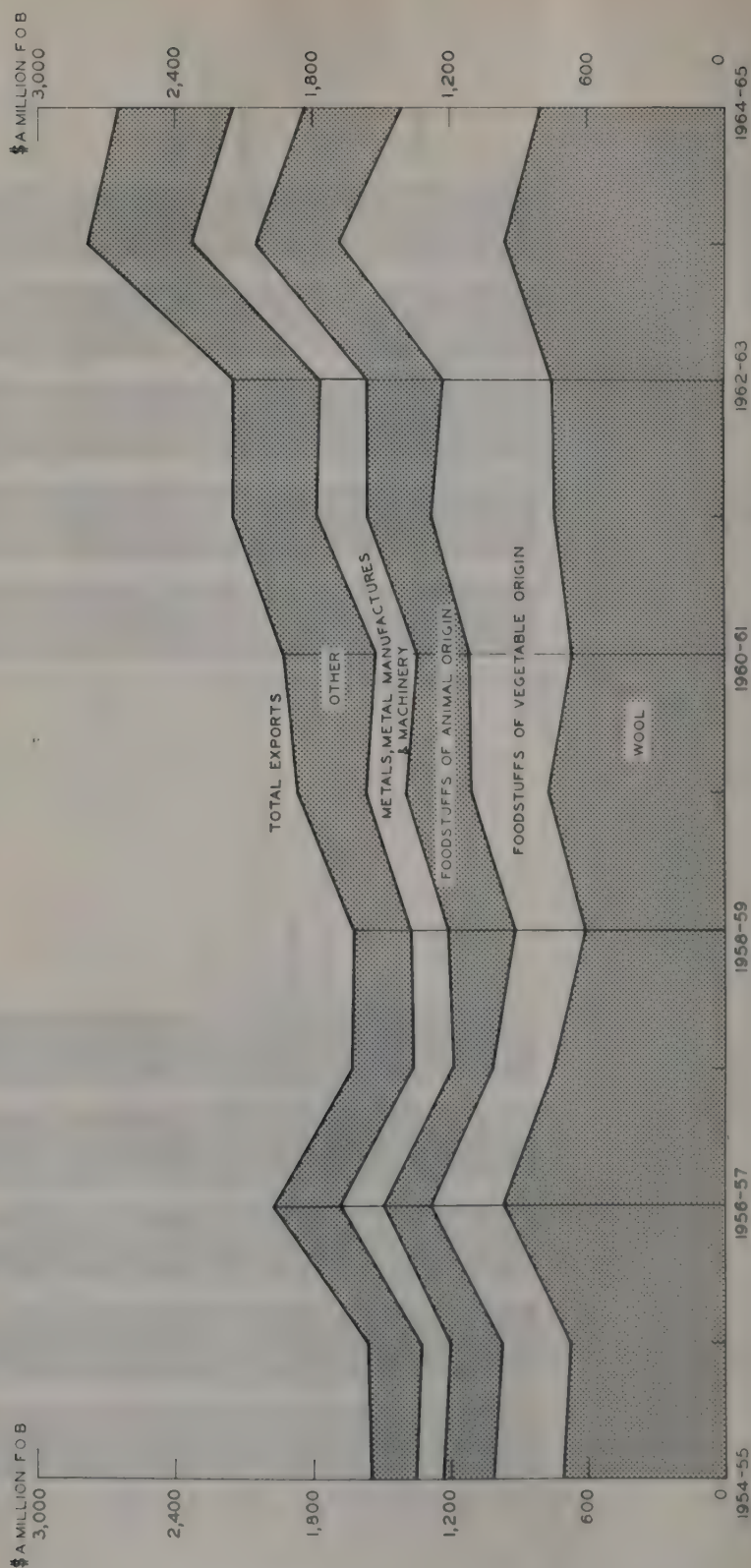
AUSTRALIA, 1960-61 TO 1964-65

(EXCLUDING GOLD)



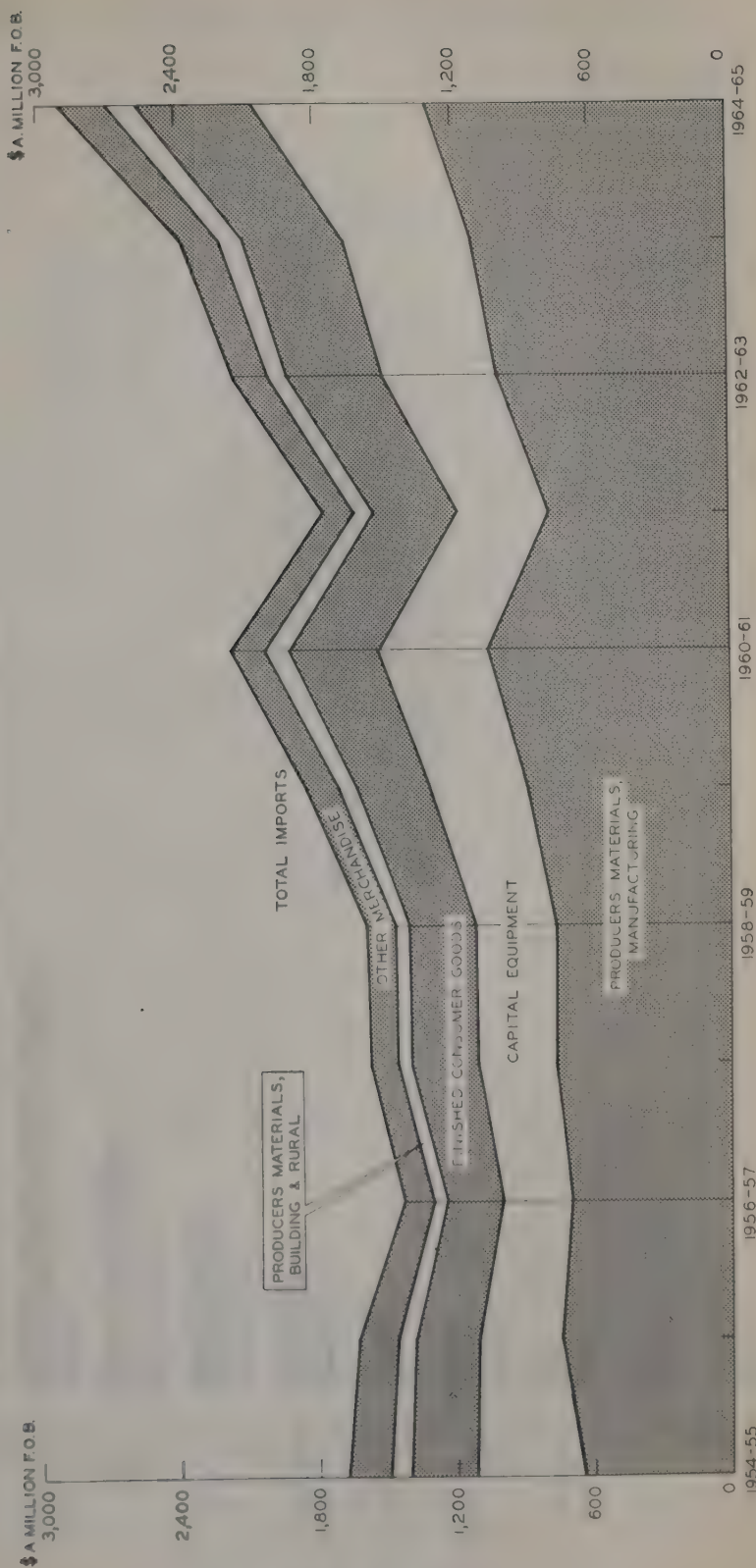
EXPORTS OF PRINCIPAL COMMODITIES: AUSTRALIA

1954-55 TO 1964-65



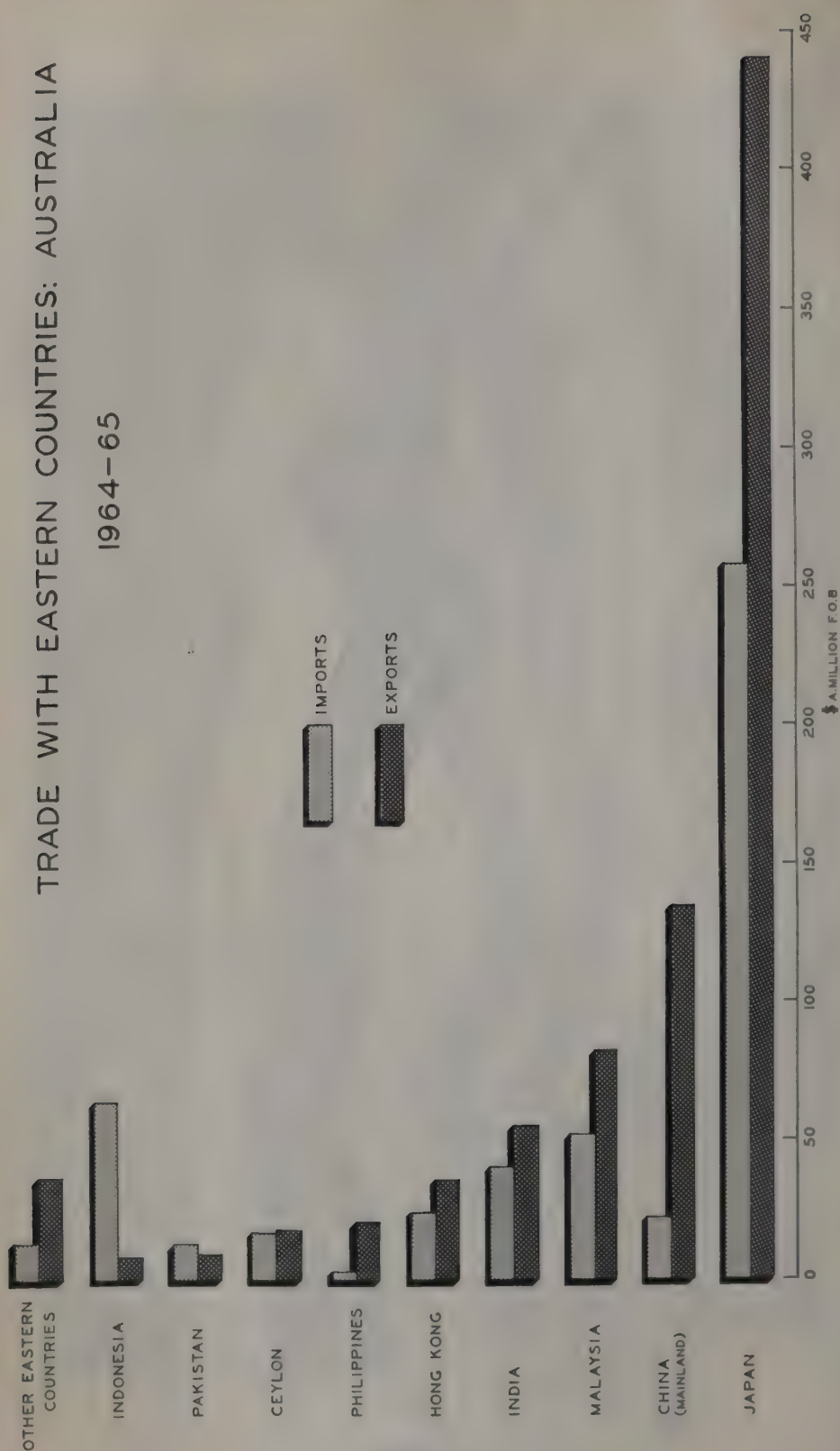
IMPORTS BY ECONOMIC CLASS: AUSTRALIA

1954-55 TO 1964-65



TRADE WITH EASTERN COUNTRIES: AUSTRALIA

1964-65



VALUE OF MERCHANDISE TRADE OF AUSTRALIA WITH EASTERN COUNTRIES
PRINCIPAL ARTICLES, 1962-63 TO 1964-65
(\$A'000 f.o.b.)

Article	Imports			Article	Exports		
	1962-63	1963-64	1964-65		1962-63	1963-64	1964-65
Apparel and attire . . .	6,140	7,956	9,896	Animal (except marine)			
Bags and sacks . . .	17,230	17,270	21,022	oils and fats . . .	6,308	7,580	8,526
Crude and crêpe rubber				Army stores . . .	3,126	2,258	4,730
and latex . . .	16,136	14,944	17,594	Butter . . .	4,044	5,074	4,660
Fibres, vegetable origin	5,448	5,416	4,064	Cheese . . .	2,132	2,864	2,660
Hides and skins . . .	398	814	808	Fodders . . .	2,610	3,618	1,774
Nuts, edible . . .	2,874	3,230	2,848	Fruit, fresh or preserved	3,648	4,502	4,626
Outside packages . . .	4,224	4,878	5,980	Grains and cereals—			
Petroleum oils—				Wheat . . .	151,030	182,268	180,726
Kerosene . . .	5,612	3,848	3,864	Flour (wheaten),			
Petroleum, crude . . .	57,782	54,004	62,542	plain white . . .	18,804	20,686	22,024
Petroleum spirit . . .	6,070	6,702	7,322	Other . . .	10,272	24,494	22,876
Other . . .	1,710	1,428	2,542	Infants' and invalids'			
Piece-goods—				foods . . .	5,408	4,922	5,828
Cotton and linen . . .	48,212	48,792	55,308	Leather . . .	1,306	1,498	1,854
Hessian and other jute	7,516	7,662	8,784	Machines and			
Pulp, paper and board . .	2,718	3,112	3,960	machinery . . .	12,866	15,860	16,514
Tea . . .	24,230	22,442	25,150	Meats, all kinds . . .	8,940	16,072	18,582
Timber . . .	9,048	9,820	14,598	Metals and metal			
Vegetable oils and fats,				manufactures except			
n.e.i. . .	3,988	5,866	1,362	zinc bars, etc. . .	34,232	50,392	43,578
All other articles . . .	115,098	153,954	263,003	Milk and cream . .	14,460	12,990	16,914
				Petroleum oils . . .	15,294	8,060	7,600
				Sugar—from cane (raw)	18,510	55,848	38,416
				Wool . . .	268,760	345,110	284,638
				Zinc bars, blocks, etc.	6,926	8,538	13,884
				All other articles . .	89,942	110,676	143,995
Total . . .	334,434	372,138	510,647	Total . . .	678,618	883,310	844,405

The following tables show the imports and exports of principal articles of merchandise from and to individual countries.

VALUE OF IMPORTS OF PRINCIPAL ARTICLES OF MERCHANDISE FROM
INDIVIDUAL EASTERN COUNTRIES: AUSTRALIA, 1964-65
(\$A'000 f.o.b.)

Article	Brunei	Ceylon	Hong Kong	India	Malaysia	Pakistan	China (Mainland)	Indonesia	Japan
Apparel and attire . . .	..	6	4,592	158	4	12	1,958	32	3,024
Bags and sacks . . .	..	16	186	12,842	2	6,666	692	..	518
Crude and crêpe rubber and latex	..	48	..	..	17,500	..	..	..	46
Fibres, vegetable origin . . .	..	756	48	726	..	1,970	8	64	194
Nuts, edible . . .	..	354	2	2,200	6	..	284	..	2
Outside packages . . .	..	398	366	534	100	84	448	232	3,692
Petroleum oils—									
Kerosene . . .	..	..	..	..	2,338	..	..	1,522	4
Petroleum, crude . . .	7,206	..	..	160	3,618	..	..	51,554	4
Petroleum spirit . . .	..	..	..	..	4,118	..	..	1,892	1,312
Other . . .	..	..	..	..	716	..	..	1,462	364
Piece-goods—									
Cotton and linen . . .	2	..	8,754	5,288	12	398	6,288	..	31,358
Hessian and other jute . .	..	..	..	7,934	..	848	..	..	2
Pulp, paper and board . . .	..	..	..	74	..	..	882	..	2,934
Tea . . .	..	15,456	6	5,040	134	2	306	4,182	..
Timber . . .	24	..	244	2	13,648	2	..	98	118
Vegetable oils and fats, n.e.i.	..	22	68	296	502	..	..	..	474
All other articles . . .	..	221	10,144	5,655	9,624	3,206	11,996	2,996	214,528
Total . . .	7,232	17,277	24,414	40,909	52,322	13,188	22,862	64,034	258,574

(a) Includes metals, metal manufactures and machinery, \$110,212,000; textiles other than piece-goods shown above, \$38,016,000; earthenware, chinaware, etc., \$9,446,000; sporting materials, toys, jewellery, etc., \$6,096,000; chemical and medicinal products, etc., \$7,744,000; optical, surgical, etc., supplies, \$6,040,000.

**VALUE OF EXPORTS OF PRINCIPAL ARTICLES OF MERCHANDISE TO
INDIVIDUAL EASTERN COUNTRIES: AUSTRALIA, 1964-65**
(*\$A'000 f.o.b.*)

Article	Ceylon	Hong Kong	India	Malaysia	Pakistan	China (Mainland)	Indonesia	Japan
Animal (except marine) oils and fats	652	166	514	1,460	..	1,876	20	1,180
Army stores . . . . .	..	46	4	4,580	..	..	..	..
Butter	784	924	6	2,172	2	..	38	36
Cheese	84	122	60	300	2	..	40	1,118
Fodders	6	306	4	1,372	..	..	..	24
Fruit, fresh or preserved . . . . .	..	1,172	2	2,980	..	10	34	22
Grains and cereals—								
Wheat	30	3,158	24,838	5,306	3,186	114,508	240	23,616
Flour (wheaten), plain white	11,982	184	6	6,604	10	..	650	..
Other	32	578	76	3,160	2	2,046	2	13,056
Infants' and invalids' foods	240	724	2	2,114	2	..	20	8
Leather	40	1,052	36	564	..	4	..	24
Machines and machinery	30	1,000	946	5,622	1,052	2	862	350
Meats, all kinds	274	1,314	64	4,750	6	2	524	10,272
Metals and metal manufactures except zinc bars, etc.	346	4,780	3,572	6,496	410	268	1,470	18,298
Milk and cream	1,158	272	1,792	8,774	20	4	258	162
Petroleum oils . . . . .	..	..	..	5,338	..	..	16	2,232
Sugar—from cane (raw) . . . . .	..	130	..	2,398	..	..	2	35,142
Wool . . . . .	..	7,900	12,724	10	1,442	14,462	58	242,658
Zinc bars, blocks, etc.	2	760	7,678	958	242	4	2	118
All other articles	3,011	12,025	3,076	17,959	2,898	2,447	3,195	a 92,424
Total	18,671	36,613	55,400	82,917	9,274	135,633	7,431	440,740

(a) Includes coal, \$48,082,000; copper ores and concentrates, \$7,113,000; other ores and concentrates, \$9,829,000.

Oversea trade at principal ports

The following table shows the value of oversea imports and exports at the principal ports of Australia during the year 1964-65, and the totals for each State and Territory.

VALUE OF OVERSEA TRADE: PRINCIPAL PORTS, 1964-65
(*\$A'000 f.o.b.*)

Port	Imports	Exports	Port	Imports	Exports
New South Wales—			South Australia—continued		
Sydney(a), including Botany Bay	1,198,253	625,931	Port Lincoln	1,284	16,629
Newcastle, including Port Stephens	23,617	131,869	Port Pirie	317	77,908
Port Kembla	55,535	45,285	Wallerawang	1,038	10,843
Other . . . . .	..	649	Whyalla	4,244	1,316
Total, New South Wales	1,277,405	803,734	Other	5	23,148
Victoria—			Total, South Australia	204,856	302,242
Melbourne(a)	966,350	620,586	Western Australia—		
Geelong	60,193	81,635	Fremantle, including Perth and Kwinana	148,493	187,725
Portland	291	20,827	Albany	1,464	20,962
Total, Victoria	1,026,834	723,048	Bunbury	1,366	11,677
Queensland—			Geraldton	1,498	13,694
Brisbane(a)	178,909	302,672	Other	719	9,020
Bowen	82	5,238	Total, Western Australia	153,540	243,078
Cairns	3,760	13,862	Tasmania—		
Gladstone	3,524	16,212	Hobart	16,926	44,333
Mackay	2,244	50,301	Burnie	6,439	12,957
Maryborough	337	..	Devonport	967	6,869
Rockhampton	861	8,953	Launceston	11,806	23,156
Townsville	9,665	56,437	Total, Tasmania	36,138	87,315
Other	134	(b) 34,547	Northern Territory—		
Total, Queensland	199,516	488,222	Darwin	4,124	3,809
South Australia—			Australian Capital Territory—		
Port Adelaide, including Adelaide and Port Stanvac	197,968	172,398	Canberra	2,290	1
Grand total			Grand total	2,904,703	2,651,449

(a) Includes airport.

(b) Includes Innisfail, \$29,437,000.

Classified summary of Australian oversea trade

Statistical classes

The following table shows, according to statistical classes, the value of Australian imports and exports during each of the years 1962-63 to 1964-65.

VALUE OF OVERSEA TRADE OF AUSTRALIA, BY STATISTICAL CLASS
1962-63 TO 1964-65
(\$A'000 f.o.b.)

Class	Imports			Exports		
	1962-63	1963-64	1964-65	1962-63	1963-64	1964-65
I. Foodstuffs of animal origin, etc. . .	24,682	29,698	31,319	334,282	362,764	427,312
II. Foodstuffs of vegetable origin; non-alcoholic beverages, etc. . .	55,522	61,572	66,213	471,104	725,046	604,826
III. Alcoholic liquors, etc. . .	7,598	9,146	10,727	5,072	5,536	6,245
IV. Tobacco, etc. . .	24,272	26,880	24,866	1,604	1,780	1,925
V. Live animals and birds . . .	1,334	1,928	2,494	3,306	4,818	4,199
VI. Animal substances, etc. . .	12,454	14,066	14,701	835,096	1,055,614	889,432
VII. Vegetable substances, etc. . .	48,818	57,572	62,763	3,914	3,860	4,086
VIII. Apparel, textiles, etc. . .	233,300	233,996	272,122	9,178	14,668	15,517
IX. Oils, fats and waxes . . .	246,282	251,460	259,972	63,440	57,970	43,456
X. Pigments, paints and varnishes . .	11,348	11,614	13,112	2,366	2,662	2,837
XI. Rocks, minerals, etc. . .	19,290	23,610	26,725	70,506	93,106	137,799
XII. Metals, metal manufactures and machinery . . .	850,122	947,308	1,275,176	207,886	280,540	307,357
XIII. Rubber and leather, etc. . .	46,670	51,160	66,305	9,418	10,780	11,581
XIV. Wood and wicker, etc. . .	34,524	41,142	47,551	6,136	6,166	5,655
XV. Earthenware, etc. . .	40,438	40,718	47,325	2,256	3,390	3,649
XVI. Paper and stationery . . .	133,466	141,664	156,493	8,964	12,986	14,546
XVII. Jewellery, etc. . .	28,308	29,990	37,329	8,368	10,640	11,051
XVIII. Optical, surgical and scientific instruments . . .	37,426	43,280	49,260	6,272	7,374	9,332
XIX. Chemicals, medicinal products, essential oils, fertilizers . . .	142,462	163,374	184,720	21,662	26,616	34,217
XX. Miscellaneous(a). . .	159,240	187,696	251,232	67,222	75,998	95,791
XXI. Gold and silver; bronze specie . .	5,114	4,784	4,298	13,760	20,146	20,636
Total	2,162,670	2,372,658	2,904,703	2,151,812	2,782,460	2,651,449

(a) Includes outside packages.

In the following table the exports from Australia of (a) Australian produce and (b) re-exports are shown according to statistical classes for each of the years 1962-63 to 1964-65.

VALUE OF EXPORTS OF AUSTRALIAN PRODUCE AND RE-EXPORTS
BY STATISTICAL CLASS: 1962-63 TO 1964-65
(\$A'000 f.o.b.)

Class	Australian produce			Re-exports		
	1962-63	1963-64	1964-65	1962-63	1963-64	1964-65
I. Foodstuffs of animal origin, etc. . .	334,180	362,592	427,189	102	172	123
II. Foodstuffs of vegetable origin; non-alcoholic beverages, etc. . .	470,180	723,916	603,585	924	1,130	1,241
III. Alcoholic liquors, etc. . .	5,038	5,422	6,037	34	114	208
IV. Tobacco, etc. . .	1,218	1,522	1,625	386	258	300
V. Live animals and birds . . .	3,104	4,602	3,949	202	216	250
VI. Animal substances, etc. . .	834,802	1,054,968	888,860	294	646	572
VII. Vegetable substances, etc. . .	3,786	3,680	3,952	128	180	134
VIII. Apparel, textiles, etc. . .	8,220	13,204	13,668	958	1,464	1,849
IX. Oils, fats and waxes . . .	61,570	54,106	41,731	1,870	3,864	1,725
X. Pigments, paints and varnishes . .	2,208	2,520	2,713	158	142	124
XI. Rocks, minerals, etc. . .	70,224	92,986	136,345	282	120	1,454
XII. Metals, metal manufactures and machinery . . .	196,554	265,778	289,922	11,332	14,762	17,435
XIII. Rubber and leather, etc. . .	9,202	10,554	11,215	216	226	366
XIV. Wood and wicker, etc. . .	5,898	5,838	5,252	238	328	403
XV. Earthenware, etc. . .	2,080	3,154	3,500	176	236	149
XVI. Paper and stationery . . .	8,254	11,720	13,462	710	1,266	1,084
XVII. Jewellery, etc. . .	7,646	9,900	10,057	722	740	994
XVIII. Optical, surgical and scientific instruments . . .	5,046	5,792	7,857	1,226	1,582	1,475
XIX. Chemicals, medicinal products, essential oils, fertilizers . . .	20,080	24,968	30,497	1,582	1,648	3,720
XX. Miscellaneous . . .	42,818	49,574	59,922	24,404	26,424	35,869
XXI. Gold and silver; bronze specie . .	13,710	20,118	20,575	50	28	61
Total	2,105,818	2,726,914	2,581,913	45,994	55,546	69,536

Imports of principal articles

The following table shows the quantity, where available, and the value of the principal articles imported into Australia during each of the years 1962-63 to 1964-65.

IMPORTS OF PRINCIPAL ARTICLES: AUSTRALIA, 1962-63 TO 1964-65

Article	Quantity			Value (\$'000 f.o.b.)		
	1962-63	1963-64	1964-65	1962-63	1963-64	1964-65
Aircraft and parts				26,976	39,170	85,993
Aluminium manufacture . . . cwt	683,765	147,931	82,435	17,254	4,028	3,003
Leaf and foil . . . '000 lb.	6,299	4,488	4,952	3,858	2,974	3,393
Apparel—						
Blouses, skirts, costumes, etc.				2,926	3,752	5,129
Gloves doz.pairs	456,462	530,402	680,059	2,444	2,694	3,013
Headwear				2,216	2,602	2,357
Men's and boys' outer clothing . . .				920	996	1,115
Socks and stockings				1,102	914	856
Trimmings and ornaments				2,542	2,588	2,582
Other apparel and attire				7,078	8,476	10,315
Arms, explosives, military stores, etc.				13,692	18,264	23,006
Bags and sacks				17,382	17,332	21,021
Carpets and carpeting				10,602	9,450	12,418
Chemicals, drugs, fertilizers				142,462	163,374	184,720
Cocoa and chocolate . . . '000 lb.	31,488	42,061	27,763	7,008	10,640	6,668
Cotton, raw	42,543	56,663	55,474	11,572	15,594	15,093
Crockery, etc.				7,408	7,258	8,138
Electrical machinery and appliances . . .				118,540	117,992	139,277
Fibres (excluding cotton, raw)				22,310	24,418	28,232
Fish—						
Fresh or preserved by cold process . . .						
Preserved in airtight containers . . '000 lb.	33,630	40,177	39,965	7,644	10,384	10,671
Glass and glassware	21,529	25,087	25,949	8,078	9,368	10,598
Iron and steel—				19,086	19,030	21,693
Pipes, tubes and fittings . . . cwt	659,296	576,837	1,154,339	8,132	7,922	15,367
Plate and sheet	1,585,840	2,052,360	3,611,120	15,492	19,332	30,471
Other				22,696	32,458	56,970
Machines and machinery (except dynamo, electrical)—						
Agricultural				7,514	12,188	18,806
Metal-working				37,352	35,534	52,719
Mining and metallurgical				15,338	13,174	19,014
Motive power—						
Diesel engines				8,764	8,538	15,473
Steam engines, turbines and parts . . .				6,400	11,290	9,046
Tractors and parts				44,860	73,970	86,280
Other				34,240	34,976	50,980
Office and accounting				29,634	36,574	60,572
Textile working				15,776	13,302	17,146
Other				139,100	152,916	176,733
Motor vehicles, chassis, bodies and parts . .				196,212	252,896	252,896
Musical instruments				2,494	2,590	3,679
Oils—						
Linseed '000 gals.	872	37	1	862	38	2
Olive	1,206	1,040	1,132	3,146	2,284	2,653
Petroleum and shale—						
Crude(a) mill. gals.	3,237	3,160	3,333	143,722	144,748	151,691
Kerosene '000 gals.	98,074	72,357	66,892	10,484	7,822	7,066
Lubricating (mineral)	59,104	48,213	32,422	16,226	13,216	8,658
Petroleum and shale spirit	246,626	265,652	243,604	29,802	29,214	27,263
Residual and solar	88,694	125,408	236,881	5,836	7,288	12,826
Paper—						
Printing				39,738	45,408	49,060
Wrapping '000 cwt	365	318	386	4,314	3,600	4,027
Piece-goods—						
Cotton				75,846	72,052	78,358
Silk and man-made fibre yarn				18,936	24,412	25,596
Woollen and containing wool				3,852	3,650	4,935
All other piece-goods				23,958	25,708	26,946
Plastics materials				43,944	49,220	62,407
Rubber and rubber manufactures				42,660	46,450	59,983
Stationery and paper manufactures				47,446	48,434	50,227
Tea '000 lb.	64,369	61,749	70,421	25,058	23,620	27,022
Timber, undressed, including logs(b) . . .						
'000 sup. ft.	320,148	371,373	398,217	28,118	34,514	38,742
Tobacco '000 lb.	28,513	30,940	29,776	20,692	22,596	20,261
Yarns—						
Cotton						
Man-made fibres '000 lb.	4,771	2,829	3,688	3,812	2,370	3,228
Woollen	21,322	18,584	26,256	23,210	19,692	27,218
Other	1,094	714	647	1,468	1,272	1,434
All other articles	3,046	3,398	3,392	1,094	1,488	1,790
Total				2,162,670	2,372,658	2,904,703

(a) Includes once-run distillate.

(b) Excludes dunnage and undressed timber not measured in super. feet.

Exports of principal articles of Australian produce

The following table shows the quantities and values of the principal articles of Australian produce exported during each of the years 1962-63 to 1964-65.

**EXPORTS OF PRINCIPAL ARTICLES OF AUSTRALIAN PRODUCE
1962-63 TO 1964-65**

Article	Quantity			Value (\$A'000 f.o.b.)		
	1962-63	1963-64	1964-65	1962-63	1963-64	1964-65
Butter tons	77,410	87,751	90,286	47,186	54,714	62,165
Cheese "	25,938	27,827	27,201	12,188	13,518	14,197
Chemicals, drugs, fertilizers "				20,080	24,968	30,497
Coal tons	2,676,522	3,805,747	6,051,157	22,342	32,462	51,120
Copper "	38,843	50,475	17,759	20,846	27,510	11,240
Fruit—						
Dried tons	63,856	66,748	73,933	19,104	21,046	24,100
Fresh, including frozen . . . '000 bus.	9,224	10,953	9,853	29,968	33,156	30,543
Preserved in airtight containers . . . tons	76,830	126,786	102,003	21,266	34,236	27,584
Gold . . . . . "	..	..	..	12,940	14,290	18,407
Grains and cereals—						
Barley tons	230,411	396,335	363,407	10,458	18,298	18,002
Flour (wheaten), plain white . . . tons(a)	523,862	684,628	572,114	31,390	42,238	37,334
Wheat tons	4,070,653	6,796,194	5,624,462	216,904	362,018	297,199
Other . . . . . "	..	..	..	35,244	34,692	39,324
Hides and skins . . . . . "	..	..	..	73,420	91,180	79,534
Iron and steel . . . . . "	..	..	..	51,530	66,556	61,678
Lead, bullion tons	78,076	83,332	58,221	12,394	17,578	18,427
Lead, pig "	169,262	169,035	152,211	22,194	30,572	42,005
Machines and machinery (except dynamo, electrical) . . . . . "	..	..	..	27,120	35,008	42,373
Meats preserved by cold process—						
Beef and veal tons	259,636	281,286	316,030	158,036	176,522	200,363
Lamb "	25,274	18,574	24,166	10,362	7,718	10,832
Mutton "	61,045	66,927	72,766	23,304	24,752	29,517
Other . . . . . "	..	..	..	13,908	15,006	19,934
Meats, tinned tons	22,220	23,973	26,978	13,042	12,588	15,797
Milk and cream '000 lb.	134,874	142,236	172,878	18,224	19,700	25,127
Ores and concentrates tons	1,087,992	1,369,176	1,840,619	44,800	57,450	80,954
Petroleum and shale oils . . . . . "	..	..	..	46,842	38,624	22,273
Sugar (from cane) tons	1,145,966	1,116,190	1,269,163	91,042	156,512	112,685
Wool '000 lb.	1,413,619	1,508,242	1,452,153	758,712	960,880	805,850
All other articles . . . . . "	..	..	..	240,972	303,122	352,852
Total . . . . .	..	..	..	2,105,818	2,726,914	2,581,913

(a) 2,000 lb.

Plate 35 shows exports in principal commodity groups in each of the years 1954-55 to 1964-65.

Imports and exports of merchandise and bullion and specie

The following table shows the value of imports into Australia during each of the years 1960-61 to 1964-65, grouped under the headings—Merchandise, and Bullion and specie.

**VALUE OF IMPORTS OF MERCHANDISE, AND BULLION
AND SPECIE: AUSTRALIA 1960-61 TO 1964-65
(\$A'000 f.o.b.)**

Year	Merchandise	Bullion and specie	Total imports
1960-61	2,170,662	4,492	2,175,154
1961-62	1,765,092	4,400	1,769,492
1962-63	2,157,554	5,115	2,162,670
1963-64	2,367,874	4,784	2,372,658
1964-65	2,900,405	4,298	2,904,703

The next table shows the value of exports from Australia during each of the years 1960-61 to 1964-65, grouped under the headings Merchandise, and Bullion and specie. The exports of Australian produce and re-exports are shown separately.

VALUE OF EXPORTS OF MERCHANDISE, AND BULLION AND SPECIE
AUSTRALIA, 1960-61 TO 1964-65
 (\$A'000 f.o.b.)

Year	Merchandise			Bullion and specie			Total Exports
	Australian produce	Re-exports	Total	Australian produce	Re-exports	Total	
1960-61 . .	1,803,618	52,464	1,856,082	81,594	10	81,604	1,937,686
1961-62 . .	2,082,677	53,093	2,135,770	18,771	27	18,798	2,154,568
1962-63 . .	2,092,107	45,943	2,138,050	13,711	51	13,761	2,151,812
1963-64 . .	2,706,797	55,517	2,762,314	20,117	29	20,146	2,782,460
1964-65 . .	2,561,337	69,476	2,630,813	20,576	60	20,636	2,651,449

Ratios of net customs revenue to values of merchandise imported

The following table shows the ratios of net customs revenue collected, including and excluding net primage, to values of merchandise imported during the years 1960-61 to 1964-65. The calculations are based on Australian currency values and on the assumption that the value of clearances approximated to the value of imports during the same period. For particulars of customs revenue collections *see* the chapter Public Finance.

RATIOS OF NET CUSTOMS REVENUE COLLECTED TO VALUES OF
MERCHANDISE IMPORTED: AUSTRALIA, 1960-61 TO 1964-65
 (Per cent)

Ratio of—	1960-61	1961-62	1962-63	1963-64	1964-65
Net customs revenue collected (excluding net primage) to value of all merchandise imported	9.2	9.4	9.5	9.6	9.1
Net customs revenue collected plus net primage to value of all merchandise imported	9.4	9.6	9.7	9.8	9.3
Net customs revenue collected (excluding net primage) to value of dutiable goods only	19.5	21.5	20.8	21.8	21.2

Ships' and aircraft stores

The value of stores loaded on overseas ships and aircraft are excluded from export figures. During the last five years oils and all stores respectively were (\$'000): 1960-61—17,874, 28,410; 1961-62—15,638, 26,648; 1962-63—13,738, 25,874; 1963-64—18,262, 29,870; 1964-65—18,591, 30,359. In 1964-65, in addition to oils, the principal items supplied were (\$'000): meats, 3,416; fruit and vegetables, 1,020; sea food, 434; eggs, 408; butter, 331; coal, 221; fodder, etc., 159; flour, 148; rice, 70; milk and cream, 61; alcoholic beverages, 1,387; tobacco and cigarettes, 751.

Movement of bullion and specie

The following table shows the values of gold and silver bullion and specie, and of bronze specie, imported into, and exported from, Australia during each of the years 1962-63 to 1964-65.

VALUE OF OVERSEA TRADE OF AUSTRALIA IN BULLION AND SPECIE
1962-63 TO 1964-65
 (\$A f.o.b.)

	Imports			Exports		
	1962-63	1963-64	1964-65	1962-63	1963-64	1964-65
Gold—Bullion . .	4,861,586	4,581,410	4,058,438	12,865,976	14,289,380	18,404,346
Specie . .	87,542	15,248	75,782	74,250	..	..
<i>Total, gold . .</i>	<i>4,949,128</i>	<i>4,596,658</i>	<i>4,134,220</i>	<i>12,940,226</i>	<i>14,289,380</i>	<i>18,404,346</i>
Silver—Bullion . .	120,114	144,616	108,514	269,484	5,281,322	1,726,956
Specie . .	44,912	40,806	55,100	507,374	571,642	501,198
<i>Total, silver . .</i>	<i>165,026</i>	<i>185,422</i>	<i>163,614</i>	<i>776,858</i>	<i>5,852,964</i>	<i>2,228,154</i>
Bronze—Specie. .	544	2,084	102	43,706	3,750	3,900
Total—						
Australian produce . .	..	..	..	13,710,920	20,117,296	20,575,744
Re-exports . .	..	..	..	49,870	28,798	60,656
Grand total . .	5,114,698	4,784,164	4,297,936	13,760,790	20,146,094	20,636,400

The following table shows the imports and exports of bullion and specie from and to various countries during the year 1964-65.

VALUES OF AUSTRALIAN IMPORTS AND EXPORTS OF BULLION AND SPECIE, BY COUNTRY OF ORIGIN OR CONSIGNMENT, 1964-65
(*\$A f.o.b.*)

Country	Imports			Exports		
	Bullion	Specie	Total	Bullion	Specie	Total
Commonwealth countries—						
United Kingdom	2,514	1,050	3,564	251,312	20,670	271,982
Australian Territories—						
Nauru . . . . .	..	..	..	..	2,070	2,070
Norfolk Is. . . . .	..	..	..	..	1,540	1,540
Papua and New Guinea	908,308	3,086	911,394	..	398,560	398,560
Bermuda . . . . .	..	396	396	..	..	..
Canada	144	360	504	..	20	20
Hong Kong	604	2	606	18,140,660	3,306	18,143,966
New Zealand	200,886	..	200,886	363,440	14,030	377,470
Pacific Islands—						
Fiji	3,009,580	6	3,009,586	8,414	30,960	39,374
Gilbert and Ellice Is. . . . .	..	..	..	..	1,840	1,840
New Hebrides . . . . .	..	..	..	..	1,090	1,090
Solomon Is.	5,188	..	5,188	..	29,760	29,760
Australia (re-imported) . . . . .	..	49,786	49,786	..	..	..
<i>Total, Commonwealth countries</i>	<i>4,127,224</i>	<i>54,686</i>	<i>4,181,910</i>	<i>18,763,826</i>	<i>503,846</i>	<i>19,267,672</i>
Foreign countries—						
Austria . . . . .	..	630	630	..	..	..
Bulgaria . . . . .	..	162	162	..	..	..
Czechoslovakia . . . . .	..	952	952	..	..	..
Denmark . . . . .	..	180	180	..	..	..
France	198	..	198	188,750	..	188,750
Germany, Federal Republic of	15,038	..	15,038	..	..	..
Israel . . . . .	..	178	178	..	..	..
Italy . . . . .	..	24	24	..	..	..
Japan	17,184	350	17,534	..	..	..
Liberia . . . . .	..	54	54	..	..	..
South Africa . . . . .	..	20	20	..	..	..
Spain . . . . .	..	20	20	..	..	..
Switzerland	278	69,958	70,236	..	..	..
United States of America	7,030	3,770	10,800	3,176	1,252	4,428
'For Orders' . . . . .	..	..	..	1,175,550	..	1,175,550
<i>Total, foreign countries</i>	<i>39,728</i>	<i>76,298</i>	<i>116,026</i>	<i>1,367,476</i>	<i>1,252</i>	<i>1,368,728</i>
Grand total	4,166,952	130,984	4,297,936	20,131,302	505,098	20,636,400

Imports of merchandise according to economic classes

The following table shows the value of imports of merchandise into Australia during the years 1962-63 to 1964-65 classified according to economic classes of (i) purpose and (ii) degree of manufacture. The classification according to purpose for the years 1954-55 to 1964-65 is shown in graphical form in plate 36.

VALUES OF IMPORTS OF MERCHANDISE, BY ECONOMIC CLASS: AUSTRALIA
1962-63 TO 1964-65

Economic class	Value (\$A'000 f.o.b.)			Proportion of value of imports of merchandise (Per cent)		
	1962-63	1963-64	1964-65	1962-63	1963-64	1964-65
PURPOSE						
Producers' materials for use in—						
Building and construction . . .	67,378	77,010	100,274	3.1	3.2	3.3
Rural industries	24,960	32,524	41,110	1.2	1.4	1.4
Manufacturing—						
Motor vehicle assembly(a) . . .	191,868	208,542	229,132	8.9	8.8	7.9
Other(b)	822,420	901,016	1,088,596	38.1	38.1	37.5
<i>Total, producers' materials(b)</i> .	<i>1,106,626</i>	<i>1,219,092</i>	<i>1,459,112</i>	<i>51.3</i>	<i>51.5</i>	<i>50.3</i>
Capital equipment(c)—						
Producers' equipment	413,858	471,410	597,794	19.2	19.9	20.6
Transport equipment—						
Complete road vehicles and assembled chassis	46,344	56,492	80,521	2.1	2.4	2.8
Railway equipment, vessels and civil aircraft	37,404	39,236	71,642	1.7	1.6	2.5
<i>Total, capital equipment</i>	<i>497,606</i>	<i>567,138</i>	<i>749,957</i>	<i>23.0</i>	<i>23.9</i>	<i>25.9</i>
Finished consumer goods—						
Food, beverages, and tobacco . .	81,996	91,778	103,075	3.8	3.9	3.6
Clothing and accessories	14,538	16,734	19,940	0.7	0.7	0.7
All other(d)	312,656	315,480	378,183	14.5	13.3	13.0
<i>Total, finished consumer goods(d)</i>	<i>409,190</i>	<i>423,992</i>	<i>501,198</i>	<i>19.0</i>	<i>17.9</i>	<i>17.3</i>
Fuels and lubricants(e)	60,768	57,596	51,482	2.8	2.4	1.8
Auxiliary aids to production(f) . .	69,058	72,312	85,260	3.2	3.1	2.9
Munitions and war stores	14,306	27,744	53,396	0.7	1.2	1.8
Grand total	2,157,554	2,367,874	2,900,405	100.0	100.0	100.0

DEGREE OF MANUFACTURE(g)

Producers' materials—						
Crude	316,302	349,402	377,298	14.6	14.8	13.0
Simply transformed	176,700	188,028	257,523	8.2	7.9	8.9
Elaborately transformed	613,624	681,662	824,291	28.4	28.8	28.4
Finished consumer goods—						
Crude	18,778	25,530	26,561	0.9	1.1	0.9
Simply transformed	37,244	37,072	43,427	1.7	1.6	1.5
Elaborately transformed	353,168	361,390	431,210	16.4	15.3	14.8
Total imports—						
Crude	335,080	374,932	403,859	15.5	15.8	13.9
Simply transformed	313,216	324,494	400,820	14.5	13.7	13.8
Elaborately transformed	1,509,258	1,688,448	2,095,726	70.0	70.5	72.3
Grand total	2,157,554	2,367,874	2,900,405	100.0	100.0	100.0

(a) Owing to insufficient information, it is not possible to treat unassembled tractors and other machinery in a similar manner to motor vehicles, and all such machinery and replacement parts therefor are treated as capital equipment whether imported in an assembled or unassembled condition. (b) Excludes a percentage for piece goods to be sold by retail, and paper to be used solely for wrapping, which are recorded in Finished consumer goods. All other, and Auxiliary aids to production, respectively. (c) See footnote (a). (d) Includes a percentage for piece-goods to be sold at retail; see footnote (b). (e) Excludes crude petroleum, which is included in Producers' materials. Manufacturing—Other. (f) Includes a percentage for paper to be used solely for wrapping; see footnote (b). (g) The class Fuels and lubricants consists of goods 'simply transformed', and the classes Capital equipment and Munitions and war stores entirely of goods 'more elaborately transformed'. The class Auxiliary aids to production is about equally divided between goods 'simply transformed' and 'elaborately transformed'.

Exports according to industry

The following table provides an analysis of the total recorded value of Australian exports for the years 1962-63 to 1964-65. This analysis is designed to show fluctuations in the value of exports of Australian produce dissected according to the main industry of their origin, although any such classification is necessarily arbitrary in some respects.

**VALUES OF EXPORTS OF AUSTRALIAN PRODUCE, BY INDUSTRIAL GROUP
1962-63 TO 1964-65**

Industrial group	Value (\$A'000 f.o.b.)			Proportion of value of exports of Australian produce (excluding gold) (Per cent)		
	1962-63	1963-64	1964-65	1962-63	1963-64	1964-65
Agriculture, horticulture and viticulture—						
Unprocessed	287,560	440,172	375,404	13.7	16.2	14.6
Processed	183,758	282,852	227,422	8.8	10.5	8.9
Total, agriculture, etc.	471,318	723,024	602,826	22.5	26.7	23.5
Pastoral—						
Unprocessed	953,706	1,177,422	1,065,265	45.6	43.4	41.6
Processed	129,852	144,810	123,701	6.2	5.3	4.8
Total, pastoral	1,083,558	1,322,232	1,188,966	51.8	48.7	46.4
Dairy and farmyard—						
Unprocessed	4,942	4,954	3,622	0.2	0.2	0.1
Processed	87,070	95,948	114,262	4.2	3.5	4.5
Total, dairy, etc.	92,012	100,902	117,884	4.4	3.7	4.6
Mines and quarries (other than gold)—						
Unprocessed	63,870	82,112	124,358	3.1	3.0	4.9
Processed	82,078	109,626	118,673	3.9	4.1	4.6
Total, mines, etc.	145,948	191,738	243,031	7.0	7.1	9.5
Fisheries—						
Unprocessed	13,258	14,658	18,197	0.6	0.6	0.7
Processed	718	1,036	1,246	0.1	0.0	0.0
Total, fisheries	13,976	15,694	19,443	0.7	0.6	0.7
Forestry—						
Unprocessed	854	1,028	968	0.1	0.0	0.0
Processed	5,726	5,484	4,785	0.2	0.2	0.2
Total, forestry	6,580	6,512	5,753	0.3	0.2	0.2
Total, primary produce—						
Unprocessed	1,324,190	1,720,346	1,587,814	63.3	63.4	61.9
Processed	489,202	639,756	590,089	23.4	23.6	23.0
Total, primary produce	1,813,392	2,360,102	2,177,903	86.7	87.0	84.9
Manufactures	204,176	279,612	320,911	9.8	10.3	12.5
Refined petroleum oils	46,782	38,626	22,315	2.2	1.4	0.9
Unclassified	28,564	34,284	42,379	1.3	1.3	1.7
Total, Australian produce (excluding gold)	2,092,914	2,712,624	2,563,508	100.0	100.0	100.0
Re-exports (excluding gold)	45,958	55,546	69,536	..	..	..
Gold exports	12,940	14,290	18,405	..	..	..
Total recorded value of exports	2,151,812	2,782,460	2,651,449	..	..	..

In the year 1964-65 Australian produce (other than gold) exported amounted to approximately \$2,564 million. Of this, \$2,178 million or 85 per cent was mainly the produce of primary industries, comprising \$1,588 million of unprocessed produce and \$590 million of goods which had been processed to some degree before export. The values of the principal individual items of processed Australian primary produce exported were (\$'000): sugar, 112,685; flour, etc., 37,334; canned fruit, 27,584; dried fruit, 24,100; wool (scoured, tops, etc.), 84,604; canned meats, 15,797; butter, 62,165; milk (condensed, dried, etc.), 25,127; pig lead, 42,005; lead bullion, 18,427;

zinc bars, blocks, etc., 24,418; copper ingots, 1,412; and undressed timber, 3,643. The value of manufactures exported as classified on page 426 was \$321 million, approximately 13 per cent of Australian produce (other than gold) exported in 1964-65. The values of principal individual items here included were (\$'000): manufactures of metal, 129,711; implements and machinery, 42,373; drugs and chemicals, 26,412; and paper and stationery, 13,462. Refined petroleum oils exported are shown separately, as they consist largely of imported crude oils refined in Australia and re-exported in the refined form. The values of principal individual items shown as 'unclassified' in 1964-65 were (\$'000): individual consignments of less than \$100 in value, 13,251; and military equipment and stores and supplies for Australian projects overseas, 7,545.

The items enumerated indicate the arbitrariness of the line necessarily drawn between primary produce and manufactures in any classification of this kind. The value of processed primary products exported includes some element of value added by the simpler processes of manufacture, while the value shown for manufactures exported necessarily includes the value of raw materials (primary produce) used in those manufactures.

External trade of Australia and other countries

Essentials of comparison

Direct comparison of the external trade of any two countries is possible only when the general conditions prevailing therein, and the system of record, are more or less identical. For example, in regard to the mere matter of record, it may be observed that in one country the value of imports may be the value at the port of shipment, while in another the cost of freight, insurance and charges may be added thereto. Again, the values of imports and exports in one may be declared by merchants, whereas in another they may be the official prices fixed from time to time by a commission constituted for the purpose. In later years, moreover, a very substantial difference in the value of imports would result from the different methods of converting the moneys of foreign countries, i.e. from the application of current rates of exchange or of the mint par. Lastly, the figures relating to the external trade of any country are also affected in varying degree by the extent to which they include transit or re-export trade. This class of trade represents a much greater proportion of the trade of Switzerland and Belgium-Luxembourg than that of other countries. France and the United Kingdom also re-export largely, whereas in Canada, Australia and New Zealand re-exports account for a comparatively small proportion of the total trade.

Special trade of various countries

In the following table the figures, which are expressed in Australian currency, relate as nearly as possible to imports cleared for home consumption in the various countries specified and to exports of their domestic products. It is to be noted, however, that these figures do not invariably denote the same thing throughout, since, in the United Kingdom and other manufacturing countries, raw or partly manufactured materials are imported as for home consumption and, after undergoing some process of manufacture or further modification, are re-exported as domestic production. Nevertheless, a comparison of this character reveals approximately the extent of the external trade which otherwise would not be manifest. The countries listed on page 428 are not necessarily all the important trading countries of the world, but those important countries for which comparable statistics are available. Information for countries other than Australia has been extracted from publications of the United Nations.

VALUES OF IMPORTS CLEARED FOR HOME CONSUMPTION, AND EXPORTS OF DOMESTIC PRODUCTS (MERCHANDISE ONLY(a)): VARIOUS COUNTRIES, 1965

Country	Imports cleared c.i.f.	Exports f.o.b.	Total	Trade per head of population		
				Imports cleared	Exports	Total
	\$Am	\$Am	\$Am	\$A	\$A	\$A
United States of America	16,799	23,606	40,406	87.44	122.87	210.31
Germany, Federal Republic of . . .	(b) 13,152	(c)(d) 14,594	27,745	225.63	250.36	475.99
United Kingdom . . .	14,030	11,121	25,151	258.80	205.14	463.94
France . . .	9,062	(d) 8,094	17,156	187.17	167.16	354.33
Japan . . .	(e) 7,144	6,007	13,151	73.72	61.99	135.71
Canada . . .	(b)(e) 6,234	6,913	13,147	323.51	358.72	682.23
Italy . . .	6,508	5,360	11,868	127.38	104.92	232.30
Netherlands . . .	6,351	5,227	11,579	523.73	431.04	954.77
Belgium-Luxembourg . . .	5,330	5,031	10,361	549.12	518.34	1,067.46
Sweden . . .	(e) 3,468	3,305	6,773	452.64	431.38	884.02
Switzerland . . .	3,249	2,382	5,631	553.12	405.56	958.68
Australia(f) . . .	(b) 2,890	(c)(d) 2,564	5,454	256.94	227.89	484.83
Denmark . . .	(e) 2,355	1,907	4,262	499.00	404.05	903.05
Austria . . .	1,677	1,301	2,978	232.39	180.37	412.76
Norway . . .	(e) 1,784	1,161	2,945	482.89	314.29	797.18
Spain . . .	2,039	859	2,897	65.04	27.40	92.44
Finland . . .	(e) 1,355	1,162	2,516	295.74	253.69	549.43
Portugal . . .	699	464	1,164	76.79	51.00	127.79
Chile . . .	547	561	1,108	64.44	66.02	130.46
Greece . . .	797	278	1,075	93.60	32.68	126.28
Turkey . . .	488	370	858	15.67	11.89	27.56

(a) Includes silver. (b) f.o.b. (c) Includes exports of foreign aid. (d) Excludes re-exported goods. (e) Covers goods imported as distinct from goods cleared for home consumption. (f) Year ended June 1965.

Oversea trade in calendar years

For the purpose of comparison with countries which record overseas trade in calendar years, the following table has been compiled to show Australian imports and exports for each of the calendar years 1961 to 1965.

VALUE OF OVERSEA TRADE IN CALENDAR YEARS: AUSTRALIA, 1961 TO 1965
(\$A'000 f.o.b.)

Year	Merchandise		Bullion and specie		Total	
	Imports	Exports	Imports	Exports	Imports	Exports
1961 . . .	1,868,666	2,073,900	4,662	35,506	1,873,328	2,109,406
1962 . . .	2,019,188	2,093,100	4,448	10,734	2,023,636	2,103,834
1963 . . .	2,212,608	2,487,656	6,656	17,346	2,219,264	2,505,002
1964 . . .	2,654,376	2,712,370	4,670	19,454	2,659,046	2,731,824
1965 p . . .	3,010,074	2,632,744	4,761	23,482	3,014,835	2,656,226

Excise

Although excise goods have no immediate bearing on overseas trade, the rate of excise duty is in some cases related to the import duty on similar goods. Moreover, as the Excise Acts are administered by the Department of Customs and Excise, it is convenient to publish here the quantities of Australian produce on which excise duty has been paid. Particulars of customs and excise revenue are shown in the chapter Public Finance. The following table shows the quantities of spirits, beer, tobacco, etc., on which excise duty was paid in Australia during the years 1963-64 and 1964-65.

**QUANTITY OF SPIRITS, BEER, TOBACCO, ETC., ON WHICH EXCISE DUTY
WAS PAID: AUSTRALIA, 1964-65**

Article	1963-64	1964-65	Article	1963-64	1964-65
	'000 gallons	'000 gallons		'000 lb. 45,835	'000 lb. 47,328
Beer	251,715	264,889		'000 gallons	'000 gallons
	'000 proof gallons	'000 proof gallons	Cigarettes—machine-made .	6,321	9,391
Spirits—			Petrol—	495	228
Brandy	928	1,009	Aviation petrol (by-law)(a)	1,361,820	1,494,362
Gin	364	372	Aviation petrol (non by- law)(a)		
Whisky	354	359	Petrol, n.e.i.(a)		
Rum	576	565			
Liqueurs	66	75	Total petrol	1,368,636	1,503,981
Other	81	128	Aviation turbine fuel(a)	40,481	67,553
			Diesel fuel	76,661	90,990
Total spirits (potable)	2,369	2,508	Playing cards	doz. packs 104,132	doz. packs 105,595
Spirits for—				60 papers or tubes '000	60 papers or tubes '000
Fortifying wine	2,247	2,185	Cigarette papers and tubes .	69,466	61,773
Industrial or scientific pur- poses	319	352		8,640 matches	8,640 matches
Manufacture of—			Matches	3,521,310	3,503,737
Essences	111	118	Coal	'000 tons 17,556	'000 tons 17,972
Scents and toilet prepara- tions	106	104		'000 doz. containers (b) 2,503	'000 doz. containers 7,032
Vinegar	238	248	Canned fruit	'000 327	'000 (c) 51
Tobacco	'000 lb. 10,198	'000 lb. 8,922	Cathode ray tubes		
Cigars	167	141			

(a) As from July 1964 includes supplies to Commonwealth Government on which excise was paid. During 1964-65 refunds were made on 32,701,000 gallons. (b) Operative from 30 October 1963. (c) Operative to 12 August 1964.

OVERSEA INVESTMENT BY PRIVATE INVESTORS

A Survey of Oversea Investment has been conducted since 1947-48 to obtain particulars of certain types of private capital flows to and from Australia. The survey, when supplemented by other information, provides statistics of overseas investment in companies in Australia and in Australian public authority securities domiciled in Australia, and statistics of Australian investment in companies overseas and in foreign government securities. Particulars of investment income from most of those classes of investment are also obtained from the survey.

Certain types of private overseas investment are not included in the statistics which follow. Investment in real estate (except when made through companies), investment by means of bank deposits and advances, and loans between Australian individuals and non-resident individuals are not covered. Nor are changes in short-term liabilities between exporters and importers in Australia and overseas covered, except in so far as they arise from exports and imports between branches or subsidiaries and their home offices—in this case they are included in the figures of investment in branches or subsidiaries.

In some cases the capital invested in a company in Australia may be received from a company in one overseas country even though the ultimate ownership and control of that capital may rest with a parent company in a second overseas country. In the tables which classify investment in

Australia according to country of origin, the investment is shown as an inflow from the country which is the immediate source of the capital rather than from the country in which the parent company with ultimate ownership and control is domiciled. Income payable overseas is classified on a similar basis, i.e., it is classified to the country to which it is directly payable.

Remittances between Australia and overseas by Australian life insurance companies are regarded as capital transactions made to bring assets located in overseas countries into line with commitments in those countries, and are shown as a flow of investment between Australia and overseas in the tables on page 435. Similar considerations apply to overseas life insurance companies with branches in Australia.

The following are some explanatory notes relating to terms used in the tables.

Overseas. For the purpose of these statistics, 'overseas' includes Papua and New Guinea.

Companies. In these statistics the term 'companies' relates to both incorporated and unincorporated businesses.

Subsidiary. For the purpose of these statistics this term is applied to all companies in which there is a 'direct' holding, irrespective of the degree of control, if any, which is actually exercised. A holding is treated as 'direct' when there is ownership of 25 per cent or more of a company's ordinary shares (or voting stock) by one company or a number of companies incorporated in one country, or ownership of 50 per cent or more of a company's ordinary shares (or voting stock) by individuals or companies in one country.

Portfolio investment. Investment in company shares, debentures, etc., other than direct investment in such securities of a subsidiary company.

Unremitted profits. For these statistics this represents the net earnings of branches during the year, after tax, less remittances by the branches to their home offices during the year of net earnings and interest (irrespective of the period to which the earnings and interest relate). 'Net earnings' of Australian branches of overseas companies are, in general, based on the value of their income for taxation purposes.

Undistributed profits. This term refers, in the case of Australian subsidiaries, to the equity of the overseas parent in the net earnings of the Australian company, less tax (or tax provision) and less dividends declared. 'Net earnings' of Australian subsidiaries of overseas companies are, in general, based on the value of their income for taxation purposes. In the case of overseas subsidiaries of Australian companies, this term represents the equity of the Australian parent in the book value of the net earnings of the subsidiary after tax, less dividends paid or payable.

The annual bulletin *Insurance and Other Private Finance* and the *Annual Bulletin of Oversea Investment: Australia* contain additional figures relating to overseas investment, including a longer range of years covered, and also a more detailed description of the figures.

Private overseas investment in companies in Australia and investment income payable overseas by companies in Australia

The inflow of private overseas investment in companies in Australia since 1960-61, and a classification by country of origin, are shown in the following two tables.

ANNUAL INFLOW OF PRIVATE OVERSEA INVESTMENT IN COMPANIES IN AUSTRALIA, BY TYPE OF COMPANY IN WHICH CAPITAL INVESTED^(a)
1960-61 TO 1964-65
 (\$A million)

Year	Direct investment					Portfolio investment (b)	Annual inflow of overseas investment in companies
	Australian branches		Australian subsidiaries		Total direct investment		
	Un-remitted profits	Other investment	Undistributed profits	Other investment			
1960-61 .	6	49	108	209	372	98	470
1961-62 .	9	45	57	110	221	77	298
1962-63 .	16	5	90	249	360	84	444
1963-64 .	23	28	110	240	401	29	430
1964-65 .	12	51	110	316	489	39	528

(a) Increases in investment by some overseas investors are offset against withdrawals of investment by other overseas investors. (b) Partly estimated.

ANNUAL INFLOW OF PRIVATE OVERSEA INVESTMENT IN COMPANIES IN AUSTRALIA, BY DOMICILE OF INVESTOR AND CATEGORY OF INVESTMENT(a)
1960-61 TO 1964-65

(\$A million)

Year	United Kingdom	New Zealand	U.S.A. and Canada	Other	Annual inflow of oversea investment in companies
Undistributed income(b)—					
1960-61 . . .	39	3	61	11	114
1961-62 . . .	43	3	16	4	66
1962-63 . . .	71	1	27	7	106
1963-64 . . .	80	3	45	5	133
1964-65 . . .	69	3	42	8	122
Other investment—					
1960-61 . . .	185	3	115	53	356
1961-62 . . .	82	7	127	16	232
1962-63 . . .	136	4	157	41	338
1963-64 . . .	102	6	148	41	297
1964-65 . . .	174	10	184	38	406
Total annual inflow—					
1960-61 . . .	224	6	176	64	470
1961-62 . . .	125	10	143	20	298
1962-63 . . .	207	5	184	48	444
1963-64 . . .	182	9	193	46	430
1964-65 . . .	243	13	226	46	528

(a) See footnote (a) to preceding table. (b) Unremitted profits of Australian branches plus undistributed profits of Australian subsidiaries.

The next two tables show investment income payable overseas by companies in Australia, and the countries to which it is payable.

INVESTMENT INCOME(a) PAYABLE OVERSEAS BY COMPANIES IN AUSTRALIA BY TYPE OF COMPANY, 1960-61 TO 1964-65

(\$A million)

Year	Income payable on direct investment					Income payable on portfolio investment (b)	Total
	Australian branches		Australian subsidiaries		Total income payable on direct investment		
	Unremitted profits (net)	Remitted profits	Undis-tributed profits (net)	Dividends declared			
1960-61 . . .	6	43	108	57	214	20	234
1961-62 . . .	9	37	57	72	175	20	195
1962-63 . . .	16	39	90	81	226	26	252
1963-64 . . .	23	42	110	70	245	29	274
1964-65 . . .	12	47	110	78	247	32	279

(a) Excludes interest payable overseas. The amount payable by Australian companies (excluding branches of overseas companies) was \$6m in 1960-61, \$6m in 1961-62, \$7m in 1962-63, \$11m in 1963-64, and \$16m in 1964-65. (b) Because of certain differences in scope, these figures differ from those in the category 'Other' in item 12, Table 2, in *Balance of Payments* and in the table on page 438 of this chapter.

**INVESTMENT INCOME PAYABLE(a) OVERSEAS BY COMPANIES IN AUSTRALIA
BY COUNTRY TO WHICH PAYABLE AND CATEGORY OF INCOME
1960-61 TO 1964-65
(\$A million)**

Year	United Kingdom	New Zealand	U.S.A. and Canada	Other	Total
Undistributed income (b)—					
1960-61 . . .	39	3	61	11	114
1961-62 . . .	43	3	16	4	66
1962-63 . . .	71	1	27	7	106
1963-64 . . .	80	3	45	5	133
1964-65 . . .	69	3	42	8	122
Other income(c)—					
1960-61 . . .	70	7	38	5	120
1961-62 . . .	59	6	58	6	129
1962-63 . . .	69	8	62	7	146
1963-64 . . .	72	8	53	8	141
1964-65 . . .	84	9	53	11	157
Total—					
1960-61 . . .	109	10	99	16	234
1961-62 . . .	102	9	74	10	195
1962-63 . . .	140	9	89	14	252
1963-64 . . .	152	11	98	13	274
1964-65 . . .	153	12	95	19	279

(a) See footnote (a) to preceding table. (b) Unremitted profits of Australian branches plus undistributed profits of Australian subsidiaries. (c) See footnote (b) to preceding table.

A classification by broad industry groups of the inflow of direct investment and the income payable overseas on direct investment in 1964-65 is shown in the following table.

**INFLOW OF DIRECT PRIVATE OVERSEA INVESTMENT IN COMPANIES IN
AUSTRALIA AND INCOME FROM DIRECT INVESTMENT PAYABLE
OVERSEAS BY COMPANIES IN AUSTRALIA, BY INDUSTRY
IN WHICH CAPITAL INVESTED, 1964-65
(\$A million)**

Category of investment or income	Primary production and mining	Manufacturing	Other industries	Total
Inflow of direct investment—				
Undistributed income(a) . . .	7	99	16	122
Other direct investment . . .	64	146	157	367
<i>Total inflow of direct investment .</i>	<i>71</i>	<i>245</i>	<i>173</i>	<i>489</i>
Income from direct investment payable overseas—				
Undistributed income(a) . . .	7	99	16	122
Other income from direct investment	7	70	48	125
<i>Total income from direct investment</i>	<i>14</i>	<i>169</i>	<i>64</i>	<i>247</i>

(a) Unremitted profits of Australian branches plus undistributed profits of Australian subsidiaries.

Australian investment in companies overseas and investment income receivable from companies overseas

The outflow of Australian investment in companies since 1960-61 and a classification by country in which the capital was invested are shown in the following two tables.

**ANNUAL OUTFLOW OF AUSTRALIAN INVESTMENT IN COMPANIES OVERSEAS
BY TYPE OF COMPANY IN WHICH CAPITAL INVESTED(a)
1960-61 TO 1964-65
(\$A million)**

Year	Direct investment					Portfolio investment	Annual outflow of Australian investment in companies overseas
	Overseas branches		Overseas subsidiaries		Total direct investment		
	Unremitted profits	Other	Undistributed profits	Other			
1960-61 . . .	2	7	5	5	19	-9	10
1961-62 . . .	1	8	8	3	20	-4	16
1962-63 . . .	..	-4	9	9	14	-6	8
1963-64 . . .	1	3	13	-7	10	-8	2
1964-65 . . .	-2	4	20	9	31	-6	25

(a) Increases in investment by some Australian investors are offset against withdrawals of investment by other Australian investors.

Minus sign (-) denotes inflow.

**ANNUAL OUTFLOW OF AUSTRALIAN INVESTMENT IN COMPANIES OVERSEAS
BY COUNTRY IN WHICH CAPITAL INVESTED AND CATEGORY
OF INVESTMENT(a): 1960-61 TO 1964-65
(\$A million)**

Year	United Kingdom	New Zealand	U.S.A. and Canada	Other	Annual outflow of Australian investment in companies overseas
Undistributed income					
(b)—					
1960-61 . . .	2	3	..	2	7
1961-62 . . .	1	3	..	5	9
1962-63 . . .	..	3	..	6	9
1963-64 . . .	-1	9	1	5	14
1964-65 . . .	-1	9	..	10	18
Other investment—					
1960-61 . . .	-3	4	1	1	3
1961-62 . . .	-1	4	-1	5	7
1962-63 . . .	1	8	..	-10	-1
1963-64 . . .	-16	7	..	-3	-12
1964-65 . . .	-7	4	..	10	7
Total investment—					
1960-61 . . .	-1	7	1	3	10
1961-62 . . .	..	7	-1	10	16
1962-63 . . .	1	11	..	-4	8
1963-64 . . .	-17	16	1	2	2
1964-65 . . .	-8	13	..	20	25

(a) Increases in investment by some Australian investors are offset against withdrawals of investment by other Australian investors.

(b) Unremitted profits of Australian branches plus undistributed profits of Australian subsidiaries.

Minus sign (-) denotes inflow.

The next two tables show income from direct investment payable to Australia by companies overseas, and countries from which it is receivable.

**INCOME FROM DIRECT INVESTMENT PAYABLE TO AUSTRALIA BY
COMPANIES OVERSEAS, BY TYPE OF COMPANY, 1960-61 TO 1964-65**
(\$A million)

Year	Oversea branches		Oversea subsidiaries		Total income from direct investment
	Unremitted profits	Remitted profits	Undistributed profits	Dividends declared	
1960-61	2	5	5	7	19
1961-62	1	5	8	8	22
1962-63 . . . .	..	9	9	11	29
1963-64	1	5	13	13	32
1964-65	-2	7	20	17	42

**INCOME FROM DIRECT INVESTMENT PAYABLE TO AUSTRALIA BY
COMPANIES OVERSEAS, BY COUNTRY FROM WHICH RECEIVABLE AND
CATEGORY OF INCOME, 1960-61 TO 1964-65**
(\$A million)

Year	United Kingdom	New Zealand	U.S.A. and Canada	Other	Total
Undistributed income(a)—					
1960-61	2	3	..	2	7
1961-62	1	3	..	5	9
1962-63 . . . .	..	3	..	6	9
1963-64	-1	9	1	5	14
1964-65	-1	9	..	10	18
Other income—					
1960-61	1	6	..	5	12
1961-62	1	7	..	5	13
1962-63	1	9	..	10	20
1963-64	1	7	..	10	18
1964-65	4	12	..	8	24
Total—					
1960-61	3	9	..	7	19
1961-62	2	10	..	10	22
1962-63	1	12	..	16	29
1963-64 . . . .	..	16	1	15	32
1964-65	3	21	..	18	42

(a) Unremitted profits of Australian branches plus undistributed profits of Australian subsidiaries.

Net annual flow of investment

The net annual flow of investment between Australia and overseas, and its classification by country, are shown in the following two tables. The annual inflow of investment in Australian public authority debt domiciled overseas and net overseas remittances by insurance companies have been incorporated into both tables.

**NET ANNUAL FLOW OF INVESTMENT BETWEEN
AUSTRALIA AND OVERSEA COUNTRIES^(a)
1960-61 TO 1964-65
(\$A million)**

Year	Annual inflow of investment	Annual outflow of investment	Net annual flow of investment to Australia
1960-61 . . .	489	11	478
1961-62 . . .	308	15	293
1962-63 . . .	528	8	520
1963-64 . . .	449	7	442
1964-65 . . .	503	15	488

(a) Increases in investment by some overseas investors are offset against withdrawals of investment by other investors.

**NET ANNUAL FLOW OF INVESTMENT BETWEEN AUSTRALIA AND OVERSEA
COUNTRIES, BY REGION, 1960-61 TO 1964-65
(\$A million)**

Year	United Kingdom	New Zealand	U.S.A. and Canada	I.B.R.D. (a)	Other	Net annual flow of investment to Australia
1960-61 . . .	217	-1	206	-15	71	478
1961-62 . . .	123	1	165	-16	20	293
1962-63 . . .	222	-8	244	12	50	520
1963-64 . . .	225	-7	175	7	42	442
1964-65 . . .	200	-2	260	-1	31	488

(a) Particulars are not available of the domicile of securities issued to the International Bank for Reconstruction and Development.

Minus sign (-) denotes outflow.

BALANCE OF PAYMENTS

Estimates of a country's balance of payments are prepared for the purpose of providing a systematic record in money terms of the economic transactions which take place over a period between that country and all other countries. Such records are essential to the examination of influences which external factors have on the domestic economy. The Australian economy is subject to fairly large fluctuations in export income, and it is also affected in important respects by variations in the level of foreign investment and the demand for imports. Consequently, these estimates have always assumed particular importance in this country.

Official estimates of Australia's balance of payments covering the period 1928-29 to 1930-31 were included in the Appendix to Official Year Book No. 24, 1931. Except for the war years (1939 to 1945), estimates have since been published annually. Detailed estimates are currently provided twice yearly in the form of a mimeographed publication *Balance of Payments*. This publication brings the estimates forward to the end of the most recent financial year or half-year and, together with a printed volume *The Australian Balance of Payments, 1928-29 to 1950-51*, provides also a description of the various items included and the sources from which the information is obtained. A summarized statement of the principal current account items and some identified capital movements is prepared and issued on a quarterly basis in the *Balance of Payments—Quarterly Summary*.

The form in which the Australian estimates are presented follows the pattern originally adopted by the International Monetary Fund. In this presentation a basic distinction is drawn between 'current account' transactions and 'capital account' transactions. Current account transactions are defined as those which involve changes in the ownership of goods or the rendering of services between residents of Australia and the rest of the world. They include such important items as exports, imports, shipping freights, dividends, profits and interest, travel and government expenditure. The current account also includes transfers in the form of personal gifts and government gifts of technical assistance, for which there is no consideration. Capital account transactions

are defined as those which involve claims to money and titles to investments between residents of one country and those of another country. Details are shown according to whether the items with which transactions are concerned are classified as assets or liabilities. For practical purposes, items are also broadly divisible into investment items (including overseas investment in companies in Australia and government loans), certain financing transactions, and monetary movements (including transactions with the International Monetary Fund and changes in the level of international reserves).

By definition the balance of payments on current account is always equivalent to the balance on capital account. The net monetary movement is used as a control figure to which the net sum of all other figures must reconcile. However, errors and omissions occur in the estimation of the amounts involved in various items included in both current and capital accounts, and in addition there are timing differences between the statistical recording of trade transactions and certain invisible items, and the relevant foreign exchange transactions. Therefore, in order to preserve the identity between the total shown in the current account and the total shown in the capital account, it is necessary to introduce a 'balancing item'. The 'balancing item' is included in the capital account, but, as mentioned above, it may include discrepancies in the current account, and it does not, as is frequently supposed, include only errors and timing differences related to investment and financing transactions.

Details of the estimates are assembled from a variety of sources of which the following are the more important: (i) statistics of exports and imports obtained from Australian trade statistics; (ii) details of the import valuation adjustment obtained from a sample of the invoices submitted to the Department of Customs and Excise in respect of imports into Australia; (iii) information on particular invisible current account items and capital movements obtained by regular inquiry from private organizations and government departments; (iv) details of receipts and payments of foreign exchange provided by the banking system; (v) information on dividends remitted, undistributed income and private investment in companies provided by statistics of overseas investment collected by this Bureau; (vi) information on freight on imports and other items concerned with overseas shipping obtained from a sample of the invoices submitted to the Department of Customs and Excise in respect of imports into Australia and a survey of shipping operations conducted by this Bureau; and (vii) information on international reserves supplied by the Reserve Bank of Australia.

Current account

The balance of payments on current account is arranged to show a series of credit items and a corresponding series of debit items. Primarily, entries on the credit side include all current transactions which result in receipts of foreign exchange (for goods and services, investment income or donations), and on the debit side the similar transactions which result in payments of foreign exchange. The principal exceptions to this rule are the amounts shown for undistributed income and where debts incurred for current account items, principally goods, are subsequently capitalized. In respect of these amounts no movement of foreign exchange takes place, the amounts concerned being treated as credits or debits in the relevant sections of the current account, and as corresponding outflows or inflows in the relevant sections of the capital account. A further exception occurs in the case of donations in kind where no foreign exchange movement takes place. The values of donations received or provided in kind are shown as credits or debits respectively.

The largest items shown in the current account are exports and imports, and the difference between them represents the balance of visible trade. This is the most important, and usually the most variable, relationship in the balance of payments. For balance of payments purposes, certain adjustments are made to the recorded trade statistics. Briefly, these adjustments are made to exclude those transactions for which there is no change of ownership between residents and non-residents of Australia and to include certain transactions for which there has been a change of ownership but for which customs entries are not required. In addition, a valuation adjustment is made to the recorded import statistics in order to remove the overstatement which results from the basis of valuation for customs duty. A full description of the adjustments was provided in Appendix V. of the publication *Balance of Payments, 1960-61 to 1964-65*. A full evaluation of the overall position on current account, however, occurs only after the invisible items have been taken into account. The most important of these are the transportation items.* Entries appear on both the debit and credit sides, the principal component on the debit side being freight payable overseas on imports into Australia. The principal component on the credit side is expenditure by overseas carriers, which represents mainly overseas ships' expenditure for stevedoring, port charges, etc., incurred in loading and discharging goods at Australian ports, and stores purchased in Australia. The items next in importance are those concerning income from property. Debit entries under this heading include dividends, profits, interest and royalties payable overseas, while the credit entries include similar details of amounts receivable by Australian residents. These items include undistributed income for which, as mentioned above, no

* Changes made in this issue in respect of these items have not been incorporated in Table 6. Overseas Current Account of the chapter National Accounts (see *Balance of Payments, 1963-64, 1964-65 and First Half 1965-66 and Quarterly Estimates of National Income and Expenditure*, No. 23, March Quarter 1966).

monetary payments occur. The remaining items are smaller than those mentioned above, and include travel, government transactions, donations (including foreign aid made available by the Australian Government), and, on the credit side, the net value of Australian gold production.

Capital account

On the assets side of the capital account the most important item is Australia's holdings of monetary gold and foreign exchange, usually referred to as international reserves. On the liabilities side the most important items are government loans, I.M.F. transactions and private investment in Australian companies.

Transactions with international monetary and financial agencies appear on both sides of the capital account. On the assets side items 2 and 3 show increases in subscriptions to these institutions, and on the liabilities side items 10 and 11 show corresponding increases in liabilities or changes in liabilities previously incurred. Liabilities comprise, on the one hand, bank balances and special non-negotiable, non-interest bearing securities (payable in Australian currency but convertible by arrangement into foreign currency or gold) related to capital subscriptions to the various agencies and, on the other hand, drawings from the International Monetary Fund.

Changes in overseas investment in companies by Australian residents are shown on the assets side of the capital account (items 6 and 7), and changes in investment in Australian companies by overseas residents are shown on the liabilities side (items 13 (part) and 14). Figures shown for marketing authorities (item 5) represent changes in the estimated value of commodity stocks held overseas or in amounts owed by overseas debtors to the principal Australian marketing authorities.

The balancing item includes errors and omissions and timing differences, referred to on page 436.

Tables—Balance of payments on current and capital accounts

The following tables show, for the three years 1962-63 to 1964-65, particulars of:

- (i) the balance of payments on current account;
- (ii) the balance of payments on capital account; and
- (iii) the balance of payments on current account, by major groups of countries.

BALANCE OF PAYMENTS ON CURRENT ACCOUNT: AUSTRALIA, 1962-63 TO 1964-65 (\$A million)

	1962-63	1963-64	1964-65 p
1. Exports f.o.b.(a)	2,130	2,740	2,586
2. Imports f.o.b.(a)	2,076	2,251	2,754
<i>Balance of trade</i>	54	489	-168
Invisible credits—			
3. Gold production	32	29	27
4. Transportation—			
Expenditure of overseas carriers	156	179	203
Australian carriers	64	71	85
	220	250	288
5. Travel	33	41	51
6. Property income—			
Undistributed income	9	14	16
Royalties and copyrights	2	3	2
Other	65	77	97
	76	94	115
7. Government—			
Australian Government receipts	24	31	27
Foreign government expenditure	23	31	32
	47	62	59
8. Miscellaneous—			
Business expenses	17	21	29
Other	19	22	26
	36	43	55
9. Donations, etc.—			
Immigrants' funds	56	81	94
Other	22	32	33
	78	113	127
<i>Total invisible credits</i>	522	632	722

For footnotes see next page.

BALANCE OF PAYMENTS ON CURRENT ACCOUNT: AUSTRALIA, 1962-63
TO 1964-65—continued
(\$A million)

	1962-63	1963-64	1964-65 p
Invisible debits—			
10. Transportation(b)—			
Freight	236	253	293
Other	138	159	188
	374	412	481
11. Travel	90	102	114
12. Property income—			
Public authority interest	66	70	71
Direct investment	126	120	124
Undistributed income	106	130	118
Royalties and copyrights	32	40	46
Other	30	34	36
	360	394	395
13. Government—			
Defence	19	20	28
Other	25	32	32
	44	52	60
14. Miscellaneous—			
Business expenses	23	32	43
Other	31	34	43
	54	66	86
15. Donations, etc.—			
Government—			
Papua and New Guinea	51	65	72
Other foreign aid	15	11	24
Private	60	69	76
	126	145	172
<i>Total invisible debits</i>	<i>1,048</i>	<i>1,171</i>	<i>1,308</i>
Balance on current account	-472	-50	-754

(a) The amounts shown represent the recorded trade figures adjusted for balance of payments purposes. Adjustments affect both coverage and valuation. (b) Total freight and insurance on imports, whether payable overseas or in Australia, is estimated at \$258 million in 1962-63, \$282 million in 1963-64 and \$331 million in 1964-65.

Minus sign (-) denotes deficit.

BALANCE OF PAYMENTS ON CAPITAL ACCOUNT: AUSTRALIA, 1962-63 TO 1964-65
(\$A million)

	1962-63	1963-64	1964-65p
CHANGES IN ASSETS—			
1. International reserves	130	456	-315
2. International Monetary Fund . . . . .	..	..	..
3. Other international financial agencies	3	3	4
4. Other government	2	52	16
5. Marketing authorities	-10	-30	60
6. Portfolio investment	-6	-8	-5
7. Direct investment—			
Branches—Unremitted profits	1	1	-4
Other	-4	3	5
Subsidiaries—Undistributed profits	8	13	20
Other	8	-7	14
	13	10	35
8. Life insurance . . . . .	..	4	-10
<i>Total, changes in assets</i>	<i>132</i>	<i>487</i>	<i>-215</i>

BALANCE OF PAYMENTS ON CAPITAL ACCOUNT: AUSTRALIA, 1962-63
TO 1964-65—continued
(\$A million)

	1962-63	1963-64	1964-65
CHANGES IN LIABILITIES—			
9. Government loans—			
International Bank for Reconstruction and Development	12	7	-1
Other central government	86	16	-14
Local government and semi-governmental	-2	..	-6
Discounts, etc.	-3	-1	1
	93	22	-20
10. International Monetary Fund	-23	..	-22
11. Other international financial agencies	-5	-5	1
12. Foreign banks	5	-3	1
13. Portfolio investment—Government securities	-10	-3	-5
Companies, etc.	81	27	37
	71	24	32
14. Direct investment—			
Branches—Unremitted profits	16	20	11
Other	6	28	42
Subsidiaries—Undistributed profits	90	110	107
Other	250	229	319
	362	387	479
15. Balancing item	101	112	68
<i>Total, changes in liabilities</i>	604	537	539
Balance on capital account	472	50	754

BALANCE OF PAYMENTS ON CURRENT ACCOUNT, BY MAJOR GROUPS
OF COUNTRIES: AUSTRALIA, 1962-63 TO 1964-65
(\$A million)

	1962-63	1963-64	1964-65 p
EXPORTS f.o.b.(a)—			
Sterling—			
United Kingdom	418	518	509
Other	400	466	515
Non-sterling—			
North America	302	328	302
European Economic Community	332	426	382
European Free Trade Association(b)	23	27	30
Eastern Europe, China (Mainland), etc.	187	322	247
Other	468	653	601
<i>Total, exports</i>	2,130	2,740	2,586
IMPORTS f.o.b.(a)—			
Sterling—			
United Kingdom	640	616	692
Other	272	295	329
Non-sterling—			
North America	516	590	785
European Economic Community	229	265	328
European Free Trade Association(b)	95	109	127
Eastern Europe, China (Mainland), etc.	22	29	45
Other	302	347	448
<i>Total, imports</i>	2,076	2,251	2,754

For footnotes see next page.

**BALANCE OF PAYMENTS ON CURRENT ACCOUNT, BY MAJOR GROUPS
OF COUNTRIES: AUSTRALIA, 1962-63 TO 1964-65—continued**

(\$A million)

	1962-63	1963-64	1964-65 p
INVISIBLES (NET)—			
Sterling—			
United Kingdom	-145	-133	-141
Other	-107	-110	-139
Non-sterling—			
North America	-193	-207	-208
European Economic Community	-44	-47	-57
European Free Trade Association(b)	7	14	12
Eastern Europe, China (Mainland), etc.	-2	-1	-2
Other	-58	-65	-60
International agencies	-16	-19	-18
Gold production	32	29	27
Total, invisibles (net)	-526	-539	-586
BALANCE ON CURRENT ACCOUNT—			
Sterling—			
United Kingdom	-367	-231	-324
Other	21	61	47
Non-sterling—			
North America	-407	-469	-691
European Economic Community	59	114	-3
European Free Trade Association(b)	-65	-68	-85
Eastern Europe, China (Mainland), etc.	163	292	200
Other	108	241	93
International agencies	-16	-19	-18
Gold production	32	29	27
Total, balance on current account	-472	-50	-754

(a) The amounts shown represent the recorded trade figures as shown on pages 410-11 adjusted for balance of payments purposes. Adjustments affect both coverage and valuation. (b) Other than the United Kingdom.

Minus sign (-) denotes deficit.

International reserves

The following table shows the total net gold and foreign exchange holdings of official and banking institutions as at 30 June 1963, 1964 and 1965, together with the changes in these totals during the years 1962-63, 1963-64 and 1964-65.

AUSTRALIAN INTERNATIONAL RESERVES, 1962-63 TO 1964-65

(Source: Reserve Bank of Australia)

(\$A million)

	1962-63	1963-64	1964-65
Gold	179	195	205
Foreign exchange	1,073	1,513	1,188
Total at end of year	1,252	1,708	1,393
Change during year	+130	+456	-315

Indexes of value of exports and imports at constant prices

The following tables show indexes of exports and imports at constant prices for the years 1962-63, 1963-64 and 1964-65. These indexes are published half-yearly in *Balance of Payments* and notes on their construction are contained in Appendix IV. of *Balance of Payments, 1959-60 to 1963-64*.

INDEX OF VALUE OF EXPORTS^(a) AT CONSTANT PRICES, 1962-63 TO 1964-65

(Base of each index: year 1959-60 = 100)

Commodity group	1962-63	1963-64	1964-65 p
Foodstuffs	127	160	156
Wool and sheepskins	99	106	102
Minerals, metals and metal manufactures ^(b)	127	157	161
Other	147	171	179
All exports	117	137	135

(a) Excludes gold. (b) Excludes machinery.

INDEX OF VALUE OF IMPORTS^(a) AT CONSTANT PRICES, 1962-63 TO 1964-65

(Base of each index: year 1959-60 = 100)

Commodity group	1962-63	1963-64	1964-65 p
Food, drink and tobacco	105	117	122
Textiles and clothing	112	109	124
Oils, fats and waxes	128	131	136
Metals, metal manufactures and machinery .	116	129	168
Other	128	143	167
All imports	120	131	156

(a) Excludes gold.

CHAPTER 14

TRANSPORT AND COMMUNICATION

The statistics in this chapter relate in the main to the year 1964-65, with comparisons restricted to a few recent years. More detailed figures and particulars for earlier years are included in the annual bulletins, *Transport and Communication*, *Commonwealth Finance*, and *State, Territory and Local Government Authorities' Finance and Government Securities* published by this Bureau. Current information on subjects dealt with in this chapter appears in the *Quarterly Summary of Australian Statistics*, the *Monthly Review of Business Statistics*, the *Digest of Current Economic Statistics*, the *Monthly Bulletin of Registrations of New Motor Vehicles* and two preliminary monthly statements on *Registrations of New Motor Vehicles*, and *Road Traffic Accidents involving Casualties* (quarterly).

Information additional to that contained in Bureau publications is available in the annual reports and other statements of the Department of Shipping and Transport, the various harbour boards and trusts, the several Government railways authorities, the Department of Civil Aviation, the Postmaster-General's Department, the Overseas Telecommunications Commission, the Australian Broadcasting Control Board, and the Australian Broadcasting Commission.

SHIPPING

Control of shipping

Commonwealth navigation and shipping legislation

By section 51 (i) of the Commonwealth Constitution the Parliament of the Commonwealth is empowered to make laws in respect of 'Trade and commerce with other countries, and among the States'. By section 98 this power is further defined as extending to navigation and shipping. Section 51 (vii) empowers the Commonwealth Parliament to legislate in respect of 'Lighthouses, lightships, beacons and buoys' and section 51 (ix) in respect of 'Quarantine'.

A review of the introduction and development of the *Navigation Act 1912-1950* is given in Year Book No. 40, pp. 110-12. Amendments to the principal Act were made by the Navigation Acts of 1952, 1953, 1956, 1958, 1961, and 1965. Other shipping Acts under the powers of the Commonwealth are the *Sea-Carriage of Goods Act 1924-1961*, the *Seamen's Compensation Act 1911-1964*, the *Seamen's War Pensions and Allowances Act 1940-1965*, the *Pollution of the Sea by Oil Act 1960-1965*, the *Australian Coastal Shipping Commission Act 1956-1964*, the *Australian Coastal Shipping Agreement Act 1956*, the *Stevedoring Industry Act 1956-1965*, the *Beaches, Fishing Grounds and Sea Routes Protection Act 1932-1961* (except Section 3), the *Submarine Cables and Pipelines Protection Act 1963*, and the *Lighthouses Act 1911-1961*.

The control of shipping during, and immediately after, the 1939-45 War and the establishment of the Maritime Industry Commission (abolished in 1952), the Australian Stevedoring Industry Board (replaced in 1956 by the Australian Stevedoring Industry Authority), and the Australian Shipping Board (replaced in 1956 by the Australian Coastal Shipping Commission) are described in Year Books No. 36, pages 121-30, and No. 39, pages 147-8.

Australian Coastal Shipping Commission

This Commission was established in 1956 for the purpose of maintaining and operating interstate, overseas and territorial shipping services, and replaced the Australian Shipping Board. It operates the Australian National Line, a Commonwealth-owned merchant shipping service, which, at 30 June 1965 comprised thirty-nine vessels totalling 196,342 gross tons. These vessels included twelve with a gross tonnage of 500 to 3,000, eleven with a gross tonnage of 3,000 to 5,000, eleven with a gross tonnage of 5,000 to 8,000; the passenger/vehicular vessel *Empress of Australia*, 12,637 gross tons, the bulk ore carriers *Mount Keira*, 10,229 gross tons, *Mount Kembla*, 10,112 gross tons, and *Musgrave Range*, 14,467 gross tons.

The Commission's new 47,500 tons deadweight bulk carrier *Darling River* was launched in December 1965 and is expected to be completed in April 1966.

In the year 1964-65, the *Princess of Tasmania* carried 88,905 passengers, 20,641 accompanied vehicles, 8,133 commercial vehicles and 3,345 trade cars. Between January 1965, when the *Empress of Australia* was commissioned, and 30 June 1965, this vessel carried 10,766 passengers, 1,584 accompanied vehicles, 5,696 commercial vehicles and 231 trade cars. These vessels operate in the mainland-Tasmania trade.

Australian Shipbuilding Board

Established in March 1941 as a wartime measure under the National Security (Shipbuilding) Regulations and constituted in 1948 under the *Supply and Development Act 1939-1948*, the Board now operates under the control of the Minister for Shipping and Transport. In November 1963 the Commonwealth Public Service Board approved its permanent establishment as a branch of the Department of Shipping and Transport. The membership of the Board consists of a Chairman, a Finance Member and three other members, one of whom represents the Naval Board.

The functions of the Board are set out in detail in Regulation 22 (4) of the Supply and Development Regulations and, briefly, in the exercise of those functions the Board is responsible for:

- (a) Recommending to the Minister for Shipping and Transport the price at which vessels may be purchased and disposed of by him on behalf of the Commonwealth;
- (b) the design, construction, outfitting and trials of ships;
- (c) research into all matters connected with or incidental to shipbuilding;
- (d) advice to the Minister on developments in the shipbuilding industry;
- (e) rendering assistance to all sections of the industry.

Up to 31 January 1966 the Board had arranged the construction of ninety-four merchant vessels and one naval survey vessel totalling approximately 591,000 deadweight tons, at a cost of about \$208,000,000, and also twenty-seven smaller vessels on which the Commonwealth Shipbuilding subsidy did not apply.

At 31 January 1966 the Board had current orders for the construction of twenty vessels totalling about 240,000 deadweight tons. These vessels comprised four 49,000 ton deadweight bulk ore carriers, two 19,000 ton deadweight oil tankers, one 2,700 ton deadweight coral carrier, one 2,350 cubic yard hopper dredge, one 250 ton self-propelled floating crane, two roll-on roll-off vehicle deck cargo vessels, one lighthouse supply vessel, five tugs each of average length approximately 105 feet, and three smaller vessels.

There are five major Australian shipyards building merchant vessels, two in Queensland (Evans Deakin and Co. Pty. Ltd., Brisbane, and Walkers Ltd., Maryborough), two in South Australia (Adelaide Ship Construction Pty. Ltd., Port Adelaide, and Whyalla Shipbuilding and Engineering Works, Whyalla), and one in New South Wales (State Dockyard, Newcastle), and two shipyards principally engaged in naval shipbuilding, one in New South Wales (Cockatoo Docks and Engineering Co. Pty. Ltd., Sydney) and one in Victoria (H.M. Naval Dockyard, Williamstown). There are also numerous smaller yards, situated in every State, building smaller steel and wooden working and pleasure craft.

Australian Stevedoring Industry Authority

In March 1947 legislation established a permanent Stevedoring Industry Commission to continue in peace-time the functions performed during the war by the Commission established under National Security legislation. In June 1949 legislation was enacted to abolish the Stevedoring Industry Commission, on which employers and employees were represented, and established in its place a Stevedoring Industry Board of three members, which attended to administrative matters formerly under the control of the Commission, such as the operation of labour bureaux at ports, payment of attendance money and provision of amenities. The industrial functions which previously came within the province of the Commission were assigned to a single Judge of the Commonwealth Court of Conciliation and Arbitration. In August 1956, following a Committee of Inquiry into the stevedoring industry, the Stevedoring Industry Board was replaced by the Australian Stevedoring Industry Authority of three members, including a representative of the management side of industry and a representative of the trade union movement. At the same time the judicial and non-judicial functions formerly exercised by the Commonwealth Court of Conciliation and Arbitration were divided between the Commonwealth Industrial Court and the Commonwealth Conciliation and Arbitration Commission respectively. Awards of the Conciliation and Arbitration Commission subsequently placed payment of sick pay, public holiday pay and annual leave under the administration of the Authority. Under amending legislation which operated from 6 June 1961 the Authority became responsible for payment of long service leave to registered waterside workers, and its disciplinary powers were strengthened to reduce the time lost through unauthorized stoppages. Further amending legislation, which operated from 8 October 1965, made the Authority solely responsible for the recruitment of waterside workers. The statutory provisions regulating the industry are now contained in the *Stevedoring Industry Act 1956-1965*, the *Stevedoring Industry Act 1963*, and Division 4 of Part III of the *Conciliation and Arbitration Act 1904-1965*.

System of record

In the system of recording statistics of oversea shipping, Australia is considered as a unit, and therefore only one entry and one clearance are counted for each voyage, without regard to the number of States visited (*see also* pages 446-8). For the purpose of these statistics all external territories are treated as oversea countries.

On arrival at, or departure from, a port in Australia, whether from or for an oversea country or from or for another port in Australia, the master or agent must 'enter' the vessel with the Customs authorities at the port, and supply certain prescribed information in regard to the ship, passengers and cargo. At the end of each month the information so obtained is forwarded to the Bureau of Census and Statistics. This information relates, in the main, to vessels engaged in the carriage of passengers and/or cargo between Australian States or between Australia and oversea countries.

The size of a vessel may be expressed in a number of ways. A vessel's gross tonnage, expressed in tons of 100 cubic feet, represents the total volume of the enclosed space, i.e. a ship of 25,000 tons has a total enclosed capacity of 2,500,000 cubic feet. Its net tonnage, expressed in tons of 100 cubic feet, represents the volume of enclosed space that can be used for cargo or passengers. Its displacement is its total weight and is expressed in tons of 2,240 lb. Its deadweight tonnage is the difference between the displacement of the vessel loaded to its summer loadline and the displacement light, i.e. it is the weight the vessel can carry, including the weight of bunkers and stores. Net tonnage is the concept generally used in the tables in this chapter, but since it can give a misleading impression of the size of ships which have a function other than carrying passengers and cargo (e.g. a tug has no net tonnage), some figures are given for deadweight tons and tons gross also.

Most cargo is recorded in terms of tons of 2,240 lb. However, some is shipped and recorded on the basis of forty cubic feet representing one ton measurement.

Except in Shipping at principal ports, intra-State (coastal) movements of vessels, including those of vessels engaged solely in trade within State limits, are excluded from the statistics in the following pages.

Oversea shipping

Total movement

The following table shows the number of entrances and clearances combined of oversea vessels at Australian ports, and the aggregate net tonnage, during each of the years 1960-61 to 1964-65.

OVERSEA SHIPPING: ENTRANCES AND CLEARANCES (COMBINED)
OF VESSELS DIRECT, AUSTRALIA, 1960-61 TO 1964-65

	1960-61	1961-62	1962-63	1963-64	1964-65
Number of vessels	6,778	7,210	6,762	7,477	7,601
Net tonnage '000 tons	34,317	37,662	37,584	41,640	43,295

Particulars of the total oversea movement of shipping for each year from 1822 to 1920-21 were published in Year Book No. 15, page 507, and those for each year from 1921-22 to 1950-51 in Year Book No. 40, page 97.

Total oversea shipping, States

The following table shows, for each State and the Northern Territory, the number of entrances and clearances of vessels direct from and to oversea countries, and the aggregate net tonnage, during the year 1964-65.

**OVERSEA SHIPPING: ENTRANCES AND CLEARANCES OF VESSELS DIRECT
STATES AND NORTHERN TERRITORY, 1964-65**

		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
Entrances	number	1,317	520	751	299	790	83	53	3,813
	'000 net tons	7,690	3,341	3,086	2,332	4,787	281	172	21,689
Clearances	number	1,159	526	886	311	810	58	38	3,788
	'000 net tons	7,270	4,287	3,678	1,351	4,640	237	143	21,606

Shipping communication with various countries

A vessel arriving in Australia from overseas is recorded as coming from the country where the voyage commenced, irrespective of the number of intermediate ports of call. Similarly, a vessel leaving Australia is recorded as going to the country where the voyage is scheduled to terminate. The following table shows statistics of the net tonnage entered and cleared, with cargo and in ballast, according to the principal countries where vessels commenced or terminated their voyages to or from Australia during each of the years 1962-63 to 1964-65.

**OVERSEA SHIPPING: COUNTRIES FROM WHICH ENTERED OR FOR WHICH
CLEARED, AUSTRALIA, 1962-63 TO 1964-65**
('000 net tons)

Country from which entered or for which cleared	With cargo or in ballast	Entered			Cleared		
		1962-63	1963-64	1964-65	1962-63	1963-64	1964-65
United Kingdom	Cargo	1,627	1,562	1,748	2,014	2,309	2,217
	Ballast	18	46	24	25	23	18
Canada	Cargo	502	499	657	345	274	301
	Ballast	5					3
Nauru	Cargo	532	561	468	280	322	205
	Ballast				62	43	79
New Zealand	Cargo	772	740	602	1,185	1,267	859
	Ballast	790	752	529	92	100	225
Malaysia(a)	Cargo	795	626	732	603	520	507
	Ballast	133	99	103	705	374	332
Other Commonwealth countries	Cargo	1,247	1,390	1,352	1,254	1,250	1,765
	Ballast	297	214	324	251	268	226
Arabian States	Cargo	3,158	3,183	3,664	139	266	214
	Ballast	43	53	18	2,961	2,976	3,074
France	Cargo	84	98	127	141	93	117
	Ballast			10			
Germany, Federal Republic of	Cargo	357	353	269	368	429	386
	Ballast		1	11	13		
Indonesia	Cargo	1,684	1,558	1,666	86	215	153
	Ballast	193	197	155	964	1,111	1,266
Iran	Cargo	1,020	1,102	692	107	107	132
	Ballast	10	25	4	753	876	660
Italy	Cargo	277	282	315	317	270	337
	Ballast			1	11		
Japan	Cargo	921	1,197	1,294	2,402	3,220	4,005
	Ballast	1,968	3,321	3,487	41	34	100
Netherlands	Cargo	141	94	100	218	247	156
	Ballast	5		15			22
New Caledonia	Cargo	192	186	158	171	265	272
	Ballast	31	33	65	71	29	30
United States of America	Cargo	890	1,024	1,074	857	816	725
	Ballast	13	6	31	18	30	45
Other foreign countries	Cargo	920	987	1,437	1,925	2,906	2,347
	Ballast	333	534	557	247	277	828
Total	Cargo	15,119	15,442	16,355	12,412	14,776	14,698
	Ballast	3,839	5,281	5,334	6,214	6,141	6,908
Grand total		18,958	20,723	21,689	18,626	20,917	21,606

(a) For years prior to 1964-65, figures for Malaysia exclude Sarawak, which was included in Other Commonwealth countries.

Country of registration of oversea shipping

Particulars of oversea shipping which entered Australian ports during each of the years 1962-63 to 1964-65 are given in the following table according to country of registration of vessels.

OVERSEA SHIPPING: ENTRANCES DIRECT, BY COUNTRY OF REGISTRATION OF VESSELS, AUSTRALIA, 1962-63 TO 1964-65

('000 net tons)

Vessels registered at ports in—	1962-63	1963-64	1964-65	Vessels registered at ports in—	1962-63	1963-64	1964-65
Commonwealth countries—				Foreign countries—			
Australia . . .	130	95	119	<i>continued—</i>			
Hong Kong . . .	466	393	373	Norway . . .	2,355	2,942	3,185
New Zealand . . .	341	379	378	Panama . . .	524	605	551
Singapore . . .	49	36	38	Sweden . . .	745	867	769
United Kingdom . . .	7,413	7,535	6,936	United States of America . . .	335	311	260
Other . . .	129	89	133	Other . . .	212	414	626
In cargo . . .	7,244	7,180	6,922	In cargo . . .	7,875	8,262	9,433
In ballast . . .	1,284	1,347	1,055	In ballast . . .	2,555	3,934	4,279
<i>Total, Commonwealth countries</i>	<i>8,528</i>	<i>8,527</i>	<i>7,977</i>	<i>Total foreign countries</i>	<i>10,430</i>	<i>12,196</i>	<i>13,712</i>
<i>Proportion of total %</i>	<i>42.9</i>	<i>41.1</i>	<i>36.8</i>	<i>Proportion of total %</i>	<i>57.1</i>	<i>58.9</i>	<i>63.2</i>
Foreign countries—				All countries—			
Denmark . . .	566	680	387	In cargo . . .	15,119	15,442	16,355
France(a) . . .	276	289	403	Proportion of total %	79.7	74.5	75.4
Germany, Federal Republic of . . .	312	419	710	In ballast . . .	3,839	5,281	5,334
Greece . . .	933	1,410	1,264	Proportion of total %	20.3	25.5	24.6
Italy . . .	898	669	752				
Japan . . .	1,293	1,216	1,850	Grand total	18,958	20,723	21,689
Liberia . . .	1,150	1,400	1,833				
Netherlands . . .	831	974	1,122				

(a) Includes New Caledonia (40 during 1964-65).

Australian registered tonnage which entered Australian ports from overseas during the year 1964-65 represented 0.5 per cent. of the total tonnage entered and was confined mainly to the New Zealand and Pacific Islands trade. Australian-owned overseas-registered tonnage entering Australian ports from overseas represented 2.1 per cent of the total tonnage entered.

Interstate shipping

System of record

Interstate shipping comprises two elements: (a) vessels engaged solely in interstate trade; and (b) vessels trading between Australia and overseas countries and in the course of their voyages proceeding from one State to another. (At 30 June 1965 there were no overseas vessels with permits to carry coastal cargo for an extended period. Overseas vessels may obtain Single Voyage Permits under section 286 of the Navigation Act to perform certain tasks on the Australian coast in cases where no 'licensed' vessel is available. Examples are the numerous tankers that obtain permits to carry petroleum products between interstate ports and, since the withdrawal of most of the interstate passenger liners, the overseas vessels which are given permits to carry passengers and frozen cargoes on the interstate run. At the present time orders in Council exist exempting certain trades from the provisions of the Navigation Act and it is not necessary for 'unlicensed' vessels to obtain a permit to engage in those trades.*) No complexity enters into the record of those in category (a), but with regard to the method of recording the movements of the overseas vessels (b), some explanation is necessary. Each State desires that its shipping statistics should show in full its shipping communication with overseas countries, but at the same time it is necessary to avoid any duplication in the statistics of Australia as a whole. In order to meet these dual requirements, a vessel arriving in any State from an overseas country—say the United Kingdom—via another State, is recorded in the second State as from the United Kingdom 'Overseas via States', thus distinguishing the movement from a direct overseas entry. Continuing the voyage, the vessel is again recorded for the statistics of the third State as from the United Kingdom 'Overseas via States'. On an inward voyage, the clearance from the first State to the second State is a clearance interstate, and is included with interstate tonnage in conformity with the pre-federation practice of the States, and to preserve the continuity of State statistics. Thus, movements of ships which are, from the standpoint of Australia as a whole, purely coastal movements, must for the individual States be recorded as 'Overseas via States' or 'Interstate' according to the direction of the movement. The significance of the record of these movements will be seen more clearly from the following tabular presentation of the inward and outward voyages to and from Australia

* Australian Shipping and Shipbuilding Statistics published by the Department of Shipping and Transport.

of an oversea vessel which, it is presumed, reaches Fremantle (Western Australia) and then proceeds to the terminal port of the voyage—Sydney (New South Wales)—via South Australia and Victoria. From the terminal port the vessel will commence the outward voyage, in this case retracing its inward track.

ITINERARY OF AN OVERSEA VESSEL ON THE AUSTRALIAN COAST

	Recorded as—		
	For the State and for Australia	For the States	
	1.	2.	3.
Inward Voyage—			
Enters Fremantle from United Kingdom	Oversea direct	Interstate direct	
Clears Fremantle for Adelaide			
Enters Adelaide from United Kingdom via Fremantle		Interstate direct	Oversea via States
Clears Adelaide for Melbourne			
Enters Melbourne from United Kingdom via Adelaide		Interstate direct	Oversea via States
Clears Melbourne for Sydney			
Enters Sydney from United Kingdom via Melbourne		Interstate direct	Oversea via States
Outward Voyage—			
Clears Sydney for United Kingdom via Melbourne		Interstate direct	Oversea via States
Enters Melbourne from Sydney			
Clears Melbourne for United Kingdom via Adelaide		Interstate direct	Oversea via States
Enters Adelaide from Melbourne			
Clears Adelaide for United Kingdom via Fremantle		Interstate direct	Oversea via States
Enters Fremantle from Adelaide	Oversea direct		
Clears Fremantle for United Kingdom			

From the method outlined above the requirements for Australia and for the individual States are ascertained as follows. (a) The aggregate of all ships recorded for each State as 'Oversea direct' gives the oversea shipping for Australia as a whole; (b) the aggregate for all ships recorded in any State as 'Oversea direct' plus those recorded as 'Oversea via States' gives the total *oversea shipping* for that State; and (c) the aggregate for all ships recorded as 'Oversea via States' may also be used, together with those recorded as 'Interstate direct' (including those engaged solely in interstate movement) to furnish figures showing the total *interstate movement* of shipping.

Interstate movement

Interstate direct. The following table shows the number of entrances and the net tonnage of vessels recorded into each State and the Northern Territory from any other State (including oversea vessels on interstate direct voyages as in column 2 above) during each of the years 1962-63 to 1964-65.

INTERSTATE MOVEMENT: ENTRANCES OF VESSELS INTERSTATE DIRECT STATES AND NORTHERN TERRITORY, 1962-63 TO 1964-65

State or Territory	Number			Net tons ('000)		
	1962-63	1963-64	1964-65	1962-63	1963-64	1964-65
New South Wales	1,844	1,974	2,154	5,946	6,656	7,388
Victoria	1,711	1,763	1,777	4,915	5,355	5,606
Queensland	772	789	879	2,195	2,213	2,656
South Australia	1,132	1,228	1,222	4,010	4,397	4,595
Western Australia	649	667	700	2,950	3,176	3,413
Tasmania	1,200	1,131	1,151	1,739	1,719	2,136
Northern Territory	71	78	82	144	177	159
Australia	7,379	7,630	7,965	21,899	23,693	25,953

Oversea via States. The figures in the following table show the number of entrances and clearances of vessels to and from overseas countries via other Australian States as in column 3 in the table on page 447, and their aggregate net tonnage.

**INTERSTATE MOVEMENT: ENTRANCES AND CLEARANCES OF VESSELS
OVERSEAS VIA OTHER AUSTRALIAN STATES AND NORTHERN TERRITORY
1964-65**

—		N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	Aust.
Entrances	number	869	1,019	414	589	73	238	5	3,207
	'000 net tons	4,463	6,153	1,889	2,771	316	994	30	16,616
Clearances	number	915	872	272	516	55	271	19	2,920
	'000 net tons	4,200	4,417	1,168	2,449	307	1,066	71	13,678

Total interstate movement. To ascertain the aggregate movement of interstate shipping, including the interstate movement of overseas vessels, figures in the two preceding tables must be combined. The following table shows, for each State and the Northern Territory, the total number of entrances and clearances of vessels from and for other States (including the interstate movement of overseas vessels) during the year 1964-65, together with the aggregate net tonnage.

**INTERSTATE MOVEMENT: TOTAL ENTRANCES AND CLEARANCES
STATES AND NORTHERN TERRITORY, 1964-65**

—		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
Entrances	number	3,023	2,796	1,293	1,811	773	1,389	87	11,172
	'000 net tons	11,851	11,759	4,545	7,366	3,729	3,130	189	42,569
Clearances	number	3,144	2,780	1,194	1,815	750	1,445	101	11,229
	'000 net tons	12,126	10,721	3,970	8,312	3,953	3,235	215	42,532

The following table shows the total interstate movement of shipping, including overseas vessels travelling overseas via States and interstate direct, for Australia for each of the years 1960-61 to 1964-65.

**INTERSTATE MOVEMENT: TOTAL ENTRANCES AND CLEARANCES
AUSTRALIA, 1960-61 TO 1964-65**

—		1960-61	1961-62	1962-63	1963-64	1964-65
Entrances	number	10,225	10,551	10,552	11,040	11,172
	'000 net tons	35,791	36,974	37,428	40,747	42,569
Clearances	number	10,276	10,608	10,746	10,985	11,229
	'000 net tons	36,006	36,923	37,862	40,400	42,532

Shipping engaged solely in interstate trade

The following table shows, for each State and the Northern Territory, the number of entrances direct from other States of vessels engaged solely in interstate trade (i.e., excluding overseas vessels in continuation of their overseas voyages) during the year 1964-65, together with the net tonnage.

**SHIPPING ENGAGED SOLELY IN INTERSTATE TRADE: ENTRANCES, STATES
AND NORTHERN TERRITORY, 1964-65**

—		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
Entrances	number	1,385	1,170	436	870	295	1,039	68	5,263
Net tons	'000	4,155	2,469	987	2,835	1,017	1,632	114	13,209

Australian trading vessels

The following table shows particulars of all Australian trading vessels of 200 gross tons or more engaged in the regular overseas, interstate or coastal (intrastate) services at 30 June 1965.

**AUSTRALIAN TRADING VESSELS OF 200 GROSS TONS OR MORE
30 JUNE 1965**

(Source: Department of Shipping and Transport)

Vessels	Number	Dead-weight tons	Gross tons
Interstate vessels—			
Australian-owned, Australian-registered	92	595,744	456,835
Overseas-owned, Australian-registered, engaged in Australian coastal trade—New Zealand-owned	10	28,131	24,694
Other	11	184,908	125,399
Overseas-owned, overseas-registered, on charter, engaged in Australian coastal trade	1	35,441	23,794
Total interstate vessels	114	844,224	630,722
Intrastate vessels	19	26,374	22,371
Total coastal trading vessels	133	870,598	653,093
Overseas trading vessels—			
Australian-owned, Australian-registered operated mainly on overseas services	7	21,842	21,345
Australian-owned, overseas-registered operated wholly on overseas services	10	108,153	79,345
Total overseas trading vessels	17	129,995	100,690
Total Australian trading vessels	150	1,000,593	753,783

Shipping at principal ports

For details of Harbour Boards and Trusts in each State see the chapter Local Government.

Total shipping

The following table shows the total volume of shipping—overseas, interstate and coastal—which entered the principal ports of Australia during the years 1963-64 and 1964-65. The movements of warships and of other non-commercial vessels are excluded from the table.

**TOTAL SHIPPING: ENTRANCES AT PRINCIPAL PORTS, AUSTRALIA
1963-64 AND 1964-65**

Port of entry	1963-64		1964-65		Port of entry	1963-64		1964-65	
	Num-ber	Net tons	Num-ber	Net tons		Num-ber	Net tons	Num-ber	Net tons
		'000		'000			'000		'000
New South Wales—					South Australia—				
Sydney(a) . . .	4,170	15,619	4,357	16,890	Adelaide(b) . . .	2,483	7,684	2,471	6,169
Newcastle . . .	1,914	5,133	1,899	5,584	Port Lincoln . . .	372	706	330	5,451
Port Kembla . . .	1,156	4,178	1,153	4,398	Port Pirie . . .	501	1,168	440	1,014
					Rapid Bay . . .	91	250	89	269
					Wailaroo . . .	53	247	47	228
					Whyalla . . .	568	2,056	525	2,110
Victoria—					Western Australia—				
Melbourne . . .	2,944	11,865	2,938	12,550	Fremantle(c) . . .	1,418	7,881	1,411	7,715
Geelong . . .	669	3,729	649	3,627	Albany . . .	149	713	157	763
					Bunbury . . .	142	603	139	660
					Carnarvon . . .	65	110	81	99
					Geraldton . . .	112	389	95	372
Queensland—					Yampi . . .	165	676	177	788
Brisbane . . .	1,597	5,663	1,543	5,812	Tasmania—				
Bowen . . .	42	133	29	119	Hobart . . .	546	1,362	535	1,325
Cairns . . .	277	639	255	641	Burnie . . .	402	929	402	1,054
Gladstone . . .	116	632	125	766	Devonport . . .	376	685	402	700
Mackay . . .	153	482	153	509	Launceston . . .	512	904	532	1,009
Rockhampton . . .	113	305	100	261	Northern Territory—				
Townsville . . .	361	1,119	318	1,062	Darwin . . .	126	335	142	362

(a) Includes Botany Bay.

(b) Includes Port Stanvac.

(c) Includes Kwinana.

The following table shows the total shipping tonnage which entered the principal ports of Australia, New Zealand and the United Kingdom during 1964-65.

**TOTAL SHIPPING: ENTRANCES AT PORTS, AUSTRALIA, NEW ZEALAND AND
THE UNITED KINGDOM, 1964-65
(’000 net tons)**

Port	Net tonnage entered	Port	Net tonnage entered	Port	Net tonnage entered
AUSTRALIA—		NEW ZEALAND—		ENGLAND AND WALES—	
Sydney (N.S.W.)(a) . . .	16,890	Wellington . . .	4,689	<i>continued</i>	
Melbourne (Vic.) . . .	12,550	Auckland . . .	4,433	Manchester (includ-	
Fremantle (W.A.)(b) . . .	7,715	Lyttleton . . .	3,185	ing Runcorn) . . .	7,655
Adelaide (S.A.)(c) . . .	6,169	Whangarei . . .	2,010	Tyne Ports . . .	7,361
Brisbane (Old) . . .	5,812	Otago . . .	1,378	Hull . . .	6,704
Newcastle (N.S.W.) . . .	5,584	Napier . . .	1,236	Bristol . . .	6,477
Port Kembla . . .		Bluff . . .	948	Middlesbrough . . .	5,578
(N.S.W.) . . .	4,398	Taranaki . . .	913	Swansea . . .	4,085
Geelong (Vic.) . . .	3,627			Cardiff . . .	3,302
Whyalla (S.A.) . . .	2,110	ENGLAND AND WALES—			
Hobart (Tas.) . . .	1,325	London . . .	46,924	SCOTLAND—	
Townsville (Old) . . .	1,062	Southampton . . .	26,587	Glasgow . . .	8,076
Burnie (Tas.) . . .	1,054	Liverpool (including			
Port Pirie (S.A.) . . .	1,014	Birkenhead) . . .	22,301	NORTHERN IRELAND—	
Launceston (Tas.) . . .	1,009	Dover . . .	8,218	Belfast . . .	8,808

(a) Includes Botany Bay.

(b) Includes Kwinana.

(c) Includes Port Stanvac.

Shipping cargo

Oversea and interstate cargo

The table following shows the aggregate tonnage of overseas and interstate cargo discharged and shipped at Australian ports for the years 1960-61 to 1964-65. Most cargo is recorded in terms of tons of 2,240 lb.; the remainder, mainly bulky commodities, is shipped and recorded on the basis of forty cubic feet representing one ton measurement.

SHIPPING CARGO DISCHARGED AND SHIPPED: AUSTRALIA, 1960-61 TO 1964-65

('000 tons)

Year	Oversea cargo				Interstate cargo			
	Discharged		Shipped		Discharged		Shipped	
	Weight	Meas.	Weight	Meas.	Weight	Meas.	Weight	Meas.
1960-61 . . .	17,265	3,801	13,748	1,551	13,130	1,622	13,713	1,473
1961-62 . . .	17,508	2,763	17,178	1,547	13,318	1,427	13,658	1,186
1962-63 . . .	19,497	3,397	15,405	1,545	13,882	1,306	14,340	1,100
1963-64 . . .	20,788	3,942	19,744	1,861	15,321	1,453	15,632	1,208
1964-65 . . .	23,211	4,443	20,424	1,980	15,447	1,722	16,360	1,402

The following table shows the tonnage of overseas and interstate cargo discharged and shipped at the principal ports of Australia during 1964-65.

CARGO DISCHARGED AND SHIPPED AT PRINCIPAL PORTS, 1964-65

('000 tons)

Port	Discharged				Shipped			
	Oversea		Interstate		Oversea		Interstate	
	Wt	Meas.	Wt	Meas.	Wt	Meas.	Wt	Meas.
Sydney	2,057	1,897	1,030	228	3,866	656	402	104
Botany Bay	4,496	..	75	..	67	..	1,044	..
Newcastle	735	..	2,790	..	2,732	..	1,694	..
Port Kembla	682	..	4,142	..	1,668	..	907	..
Other	10	..	24	..	11	..	..	..
<i>Total, New South Wales</i>	<i>7,980</i>	<i>1,897</i>	<i>8,061</i>	<i>228</i>	<i>8,344</i>	<i>667</i>	<i>4,047</i>	<i>104</i>
Melbourne	3,657	1,522	1,819	682	1,061	662	375	699
Geelong	3,581	1	594	..	1,505	2	931	1
Portland . . . . .	..	..	86	..	176	..	19	..
<i>Total, Victoria</i>	<i>7,238</i>	<i>1,523</i>	<i>2,499</i>	<i>682</i>	<i>2,742</i>	<i>664</i>	<i>1,325</i>	<i>700</i>
Brisbane	603	349	869	50	822	94	319	21
Cairns	96	2	120	8	146	7	21	2
Gladstone	32	..	70	..	1,188	..	11	..
Mackay	46	..	72	..	485	..	45	..
Townsville	100	9	199	42	424	..	49	2
Other	4	1	118	2	876	3	524	..
<i>Total, Queensland</i>	<i>881</i>	<i>361</i>	<i>1,448</i>	<i>102</i>	<i>3,941</i>	<i>104</i>	<i>969</i>	<i>25</i>
Port Adelaide	607	422	1,052	41	741	220	192	15
Ardrossan . . . . .	..	..	..	..	211	..	223	..
Port Lincoln	102	..	23	..	316	..	17	..
Port Pirie	11	..	118	..	578	..	209	..
Port Stanvac	1,593	..	6	..	11	..	444	..
Rapid Bay . . . . .	..	..	..	..	..	..	572	..
Whyalla	45	..	380	..	144	..	4,332	2
Other	67	..	7	..	570	..	328	..
<i>Total, South Australia</i>	<i>2,425</i>	<i>422</i>	<i>1,586</i>	<i>41</i>	<i>2,571</i>	<i>220</i>	<i>6,317</i>	<i>17</i>
Fremantle	500	158	645	72	959	67	294	29
Bunbury	113	..	1	..	435	36	50	..
Geraldton	66	1	..	..	269	1	16	..
Kwinana	3,254	..	52	..	563	..	1,151	..
Yampi . . . . .	..	..	4	..	..	..	1,510	..
Other	245	9	43	..	390	23	16	9
<i>Total, Western Australia</i>	<i>4,178</i>	<i>168</i>	<i>745</i>	<i>72</i>	<i>2,616</i>	<i>127</i>	<i>3,037</i>	<i>38</i>
Hobart	160	57	323	198	102	167	205	119
Burnie	60	4	256	6	45	18	129	55
Launceston	166	11	309	105	43	5	152	86
Other	3	..	127	288	5	8	176	258
<i>Total, Tasmania</i>	<i>389</i>	<i>72</i>	<i>1,015</i>	<i>597</i>	<i>195</i>	<i>198</i>	<i>662</i>	<i>518</i>
Darwin, Northern Territory	120	..	93	..	15	..	3	..
Australia	23,211	4,443	15,447	1,722	20,424	1,980	16,360	1,402

Oversea cargo according to country of registration of vessels

The following table shows the total oversea cargo, discharged and shipped combined, according to the country in which the vessels were registered, during each of the years 1962-63 to 1964-65.

**OVERSEA CARGO DISCHARGED AND SHIPPED, BY COUNTRY OF REGISTRATION
OF VESSELS: AUSTRALIA, 1962-63 TO 1964-65**

('000 tons)

Vessels registered at ports in—	1962-63		1963-64		1964-65	
	Weight	Meas.	Weight	Meas.	Weight	Meas.
Commonwealth countries—						
Australia	169	108	156	107	156	128
Hong Kong	695	71	898	69	807	101
New Zealand	515	407	641	396	548	529
United Kingdom	12,454	2,519	13,076	2,925	12,099	2,916
Other	396	116	259	99	336	140
<i>Total, Commonwealth countries</i>	<i>14,229</i>	<i>3,221</i>	<i>15,030</i>	<i>3,596</i>	<i>13,946</i>	<i>3,814</i>
<i>Proportion of total . . . %</i>	<i>40.8</i>	<i>65.2</i>	<i>37.1</i>	<i>62.0</i>	<i>32.0</i>	<i>59.0</i>
Foreign countries—						
Denmark	1,333	50	1,706	88	872	82
France and New Caledonia	374	106	415	107	748	110
Germany, Federal Republic of	627	246	765	350	1,542	352
Greece	1,800	18	2,818	131	2,647	88
Italy	1,319	56	623	46	779	55
Japan	2,622	205	2,589	271	3,852	450
Liberia	2,696	12	3,172	32	4,407	57
Netherlands	1,001	291	1,757	339	2,278	445
Norway	5,638	249	7,541	263	8,279	425
Panama	957	36	1,151	51	1,047	18
Sweden	1,621	325	2,049	373	1,886	361
United States of America	237	102	210	111	206	114
Other	448	25	706	45	1,146	52
<i>Total, foreign countries</i>	<i>20,673</i>	<i>1,721</i>	<i>25,502</i>	<i>2,207</i>	<i>29,689</i>	<i>2,609</i>
<i>Proportion of total . . . %</i>	<i>59.2</i>	<i>34.8</i>	<i>62.9</i>	<i>38.0</i>	<i>68.0</i>	<i>41.0</i>
Grand total	34,902	4,942	40,532	5,803	43,635	6,423

World shipping tonnage

At 1 July 1965 the total steamships and motorships 100 gross tons and upwards throughout the world was 41,865, with a gross tonnage of 160,391,504. Of those totals, steamships numbered 10,921 for 75,022,485 gross tons, and motorships 30,944 for 85,369,019 gross tons. Included were 5,307 oil tankers of 100 gross tons and upwards, with a gross tonnage of 55,046,070. Australian steamships and motorships, 306 for 726,999 gross tons, constituted 0.73 per cent and 0.45 per cent respectively of the total number and tonnage. This information has been derived from *Lloyd's Register of Shipping*.

Vessels registered in Australia

The following table shows the number and gross tonnage of trading vessels of 200 tons and over registered in Australia at 30 June 1965, classified according to: (i) year of construction, 1961 to 1965 and 1960 and earlier years, (ii) type of trade in which the vessels were engaged, and (iii) vessels built in Australian or in oversea shipyards.

AUSTRALIAN-REGISTERED TRADING VESSELS, 30 JUNE 1965(a)

(Source: Department of Shipping and Transport)

Year of construction	Oversea and interstate vessels		Intrastate vessels		Built in Australian yards		Built overseas		Total	
	No.	Gross tons	No.	Gross tons	No.	Gross tons	No.	Gross tons	No.	Gross tons
1960 and earlier	104	497,124	18	20,375	56	257,423	66	260,076	122	517,499
1961	3	20,141	1	1,996	4	22,137	..	..	4	22,137
1962	4	38,980	..	..	2	16,715	2	22,265	4	38,980
1963	2	12,932	..	..	2	12,932	..	..	2	12,932
1964	6	44,592	..	..	6	44,592	..	..	6	44,592
1965	1	14,504	..	..	1	14,504	..	..	1	14,504
Total registered in Australia	120	628,273	19	22,371	71	368,303	68	282,341	139	650,644

(a) 200 gross tons and over.

Miscellaneous

Shipping freight rates

The *Quarterly Summary of Australian Statistics* shows a list of the current freight rates for general merchandise in respect of both overseas and interstate shipments. The following table shows the freight rates from Australia to various countries for certain important commodities at 31 December 1965.

OVERSEA SHIPPING FREIGHT RATES FROM AUSTRALIA TO VARIOUS COUNTRIES, 31 DECEMBER 1965

(1 ton measurement = 40 cubic feet)

Article and country	Unit for which freight rate is quoted	Freight rate
UNITED KINGDOM AND CONTINENTAL EUROPE—		
Butter	Box 56 lb.	<i>Rates—Sterling</i> £0.613
Cheese	Ton weight	£25.184
Eggs, in shell	Ton measurement	£18.242
Meats, preserved by cold process—		
Beef, refrigerator, excluding carton	lb.	3.74d.
Lamb, refrigerator, excluding carton	lb.	4.62d.
Mutton, refrigerator, excluding carton	lb.	3.74d.
Beef, refrigerator, carton	lb.	2.70d.
Lamb, refrigerator, carton	lb.	2.70d.
Mutton, refrigerator, carton	lb.	2.70d.
Rabbits	Ton measurement	£14.272
Preserved in tins	Ton measurement	£18.828
Sausage casings, dried, in casks or cases—		
General	Ton measurement	£11.966
Refrigerated—		
Cases	Ton measurement	£19.335
Casks	Ton measurement	£18.828
Meats, not frozen—preserved in tins	Ton measurement	£11.966
Milk and cream, condensed	Ton measurement	£11.966
Fruit—		
Canned	Ton measurement	£8.900
Dried	Ton measurement	£8.900
Fresh—		
Apples	Standard bushel case	£0.680
Citrus	Standard bushel case	£0.742
Pears	Standard bushel case	£0.680
Pears	½ bushel case	£0.622
Pears	Standard bushel case	£0.742
	½ bushel case	£0.671
	¼ bushel case	£0.480
	¼ bushel carton	£0.449
Grapes, grapefruit, oranges, lemons and plums		

OVERSEA SHIPPING FREIGHT RATES FROM AUSTRALIA TO VARIOUS COUNTRIES, 31 DECEMBER 1965—continued

Article and country	Unit for which freight rate is quoted	Freight rate
UNITED KINGDOM AND CONTINENTAL EUROPE—continued		<i>Rates—Sterling</i>
Grain and pulse, unprepared—		
Barley, in bags	Ton weight	£6.875
Wheat, parcels—		
Bagged	Ton weight	£6.750
Bulk	Ton weight	£5.750
Maize	Ton weight	£8.750
Oats, in bags	Ton weight	£7.375
Rice, paddy, unhusked	Ton weight	£10.000
Grain and pulse, prepared—		
Bran	Ton weight	£9.500
Pollard	Ton weight	£9.500
Flour, wheaten	Ton weight	£8.750
Rice, clean, husked	Ton weight	£9.000
Jams	Ton measurement	£9.487
Wine	Ton measurement	£11.380
Hides and skins—		
Calf	Ton weight	£18.032
Cattle	Ton weight	}
Fox	Ton weight	
Kangaroo	Ton weight	
Opossum	Ton weight	
Rabbit and hare	Ton weight	
Wallaby	Ton weight	
Sheep—dumped	lb.	2.87d.
Other	Ton weight	£54.410
Pearlshell	Ton measurement	£11.966
Trochus and green snail shell, bags or cases	Ton weight	£17.989
Wool—		
Greasy, dumped	lb.	3.99d.
Scoured, and washed, dumped	lb.	5.00d.
Tops	lb.	4.77d.
Bark, tanning	Ton weight	£11.966
Sandalwood, in bags	Ton measurement	£11.966
Apparel and attire, effects	Ton weight or measurement	£18.762
Oils—		
Eucalyptus	Ton measurement	£11.966
Coconut	Ton measurement	£13.538
Whale	Ton weight	£13.538
Other	Ton measurement	£13.538
Stearine	Ton weight	£13.538
Tallow, unrefined, in drums	Ton weight	£13.538
Ore in casks, bags or drums, n.e.l.	Ton weight	£7.250
Zinc—		
Ex Risdon	Ton weight	£5.300
Other than above	Ton weight	£6.175
Dust in tins, sealed cases or new lined drums	Ton weight	£17.003
Copper, blister	Ton weight	£6.800
Lead	Ton weight	£6.175
Steel billets—		
Up to 20 feet	Ton weight	£7.462
Over 20 feet and up to 30 feet	Ton weight	£7.995
Tin clippings, hydraulically pressed	Ton weight	£6.023
Leather	Ton weight	£26.330
Timber—		
Logs up to 40 feet long	100 super. ft.	£4.166
Logs over 40 feet and up to 50 feet long	100 super. ft.	£4.473
Logs over 50 feet and up to 60 feet long	100 super. ft.	£4.797
Sawn undressed up to 30 feet—shipment of less than 50 tons	100 super. ft.	£2.208
Toilet paper	Ton measurement	£12.792
Stationery—		
Note paper and/or envelopes	Ton measurement	£19.271
Other than above	Ton measurement	£20.467
Casein	Ton weight	£15.670
Fertilizers	Ton measurement	£15.297
Soap	Ton measurement	£11.966
Gold and silver specie	Ad valorem	£0.750%
CEYLON—		
Flour, wheaten (all rates plus congestion charge of 25 per cent)	Ton weight	165s.
Milk and cream—		
Condensed	Ton measurement	282s.
Frozen	Ton measurement	486s. 6d.
General cargo	Ton weight or measurement	282s.

OVERSEA SHIPPING FREIGHT RATES FROM AUSTRALIA TO VARIOUS
COUNTRIES, 31 DECEMBER 1965—*continued*

Article and country	Unit for which freight rate is quoted	Freight rate
<i>Rates—Sterling</i>		
INDIA—		
Milk products in cases, cartons, etc.	Ton measurement	215s.
Wheat in bags	Ton weight	162s.
Wool—		
Greasy	lb.	3.45d.
Scoured, etc.	lb.	4.42d.
Zinc bars	Ton weight	130s.
General cargo	Ton weight or measurement	252s. 6d.
SOUTH AFRICA—		
Wool—		
Greasy	lb.	3.76d.
Scoured, etc.	lb.	4.60d.
General cargo	Ton weight or measurement	241s.
<i>Rates— Australian shillings and pence</i>		
CHINA—		
Flour	2,000 lb.	165 0
Wheat in bags	Ton weight	165 0
Wool—		
Greasy	lb.	0 3
Scoured, etc.	lb.	0 3.49
General cargo	Ton weight or measurement	275 0
HONG KONG—		
Sugar, refined, in bags	Ton weight	245 0
Wheat, in bags	Ton weight	165 0 net
Wool—		
Greasy	lb.	0 3
Scoured, etc.	lb.	0 3.49
General cargo	Ton weight or measurement	275 0
JAPAN—		
Cattle hides	Ton weight	275 0
Coal, in bags	Ton weight	235 0
Copper ores and concentrates—		
Parcels (bags or drums)	Ton weight	180 0
Bulk	Ton weight	130 0
Iron and steel scrap—		
Loose	Ton weight	240 0
4-cwt. drums	Ton weight	210 0
Over 4-cwt. drums	Ton weight	185 0
Iron, pig	Ton weight	110 0
Lead ores and concentrates—		
Parcels	Ton weight	180 0
Bulk	Ton weight	130 0
Lead, pig	Ton weight	180 0
Sugar, refined, in bags	Ton weight	245 0
Wheat	Ton weight	150 0 net
Wool—		
Greasy	lb.	0 3.32
Scoured, etc.	lb.	0 3.86
Zinc ores and concentrates—		
Parcels	Ton weight	180 0
Bulk	Ton weight	130 0
General cargo	Ton weight or measurement	275 0
MALAYSIA—		
Milk products—		
Condensed—		
From eastern Australian ports	Ton measurement	245 0
From Western Australian ports	Ton measurement	225 0
Powdered in bags—		
From eastern Australian ports	Ton weight	305 0
From Western Australian ports	Ton weight	285 0
Powdered in cases or cartons—		
From eastern Australian ports	Ton weight or measurement	250 0
From Western Australian ports	Ton weight or measurement	230 0
Flour (in bags)—		
From eastern Australian ports	2,000 lb.	165 0
From Western Australian ports	2,000 lb.	155 0
General cargo—		
From eastern Australian ports	Ton weight or measurement	262 6
From Western Australian ports	Ton weight or measurement	242 6

OVERSEA SHIPPING FREIGHT RATES FROM AUSTRALIA TO VARIOUS COUNTRIES, 31 DECEMBER 1965—continued

Article and country	Unit for which freight rate is quoted	Freight rate
INDONESIA—		
Flour—		<i>Rates— Australian shillings and pence</i>
From eastern Australian ports	2,000 lb.	170 0
From Western Australian ports	2,000 lb.	160 0
General cargo—		
From eastern Australian ports	Ton weight or measurement	262 6
From Western Australian ports	Ton weight or measurement	242 6
CANADA—EAST COAST AND ST. LAWRENCE PORTS TO MONTREAL—		
Fruit—		<i>Rates— Canadian Dollars</i>
Canned	Ton measurement	39.10
Dried	Ton measurement	36 50
Preserved	Ton measurement	42.20
Wine	Ton measurement	47.50
General cargo	Ton measurement	47.60
UNITED STATES OF AMERICA—ATLANTIC AND GULF PORTS—		
Beef, preserved by cold process—		<i>Rates— U.S. Dollars</i>
Quarters, etc.	100 lb. gross weight	4.65
Cartons	100 lb. net weight	4.15
Casein	Ton weight	47.00
Fish, preserved by cold process—		
Loose	Ton weight	90.00
Cartons	100 lb. net weight	4.50
Lead—		
Ores and concentrates	Ton weight	29.00
Mutton preserved by cold process—		
Carcases	100 lb. gross weight	5 00
Cuts in cartons	100 lb. net weight	4.15
Pipes and tubes of iron and steel	Ton weight or measurement	33.00
Wool—		
Greasy	100 lb.	5.25
Scoured, etc.	100 lb.	6 30
General cargo	Ton weight or measurement	47.60

Interstate rates per ton weight or measurement for general cargo at 31 December 1965 (expressed in Australian shillings and pence) were: Sydney-Melbourne, 162s.; Sydney-Brisbane, 160s.; Sydney-Adelaide, 207s.; Sydney-Fremantle, 262s.; Sydney-Hobart, 160s.; Sydney-Darwin, 248s. 6d.

Shipping casualties

Courts of Marine Inquiry are constituted by a magistrate assisted by skilled assessors, and, when necessary, are held at the principal port in each State and at Launceston (Tasmania). Such courts have power to deal with the certificates of officers who are found at fault. Particulars of shipping losses and casualties reported on or near the coast during each of the years 1960-61 to 1964-65 are shown in the table below.

SHIPPING CASUALTIES TO OVERSEA AND INTERSTATE STEAM AND MOTOR VESSELS(a): AUSTRALIA, 1960-61 TO 1964-65

Year	Shipping losses			Other shipping casualties			Total shipping casualties		
	Vessels	Net tons	Lives lost	Vessels	Net tons	Lives lost	Vessels	Net tons	Lives lost
1960-61	178	549,244	..	178	549,244	..
1961-62	147	569,644	1	147	569,644	1
1962-63	122	468,326	..	122	468,326	..
1963-64	109	362,798	..	109	362,798	..
1964-65	87	315,762	..	87	315,762	..

(a) Vessels over 50 net tons.

Lighthouses; distances by sea; depths of water and tides at main ports; ferry passenger services

A list of the principal lighthouses on the coast of Australia, giving details of the location, number, colour, character, period, candle-power and visibility of each light so far as particulars are available, will be found in *Transport and Communication*, Bulletin No. 46.

The distances by sea between principal ports of Australia and some important ports in other countries which trade with Australia were published in Year Book No. 48, page 525.

A table showing the depths of water available and tides at principal ports of Australia is published in the annual bulletin, *Transport and Communication*. For some major ports information is given in the chapter Local Government.

For particulars of ferry passenger services operating in several States see page 472.

GOVERNMENT RAILWAYS

The Commonwealth Government and each State Government own and operate railway systems in Australia. The State systems were built primarily to provide transport links from the State capitals into the hinterland areas. Because their construction commenced long before Federation, little consideration was given to interstate rail movements, with the result that each State adopted a rail gauge considered best for its requirements. The Commonwealth Government took over the South Australian railways in and to the Northern Territory and extended them to Birdum and Alice Springs. It also constructed new lines from Queanbeyan (New South Wales) into the Australian Capital Territory and from Port Pirie (South Australia) to Kalgoorlie (Western Australia). The 4-ft. 8½-in. gauge line from South Brisbane (Queensland) to Grafton (New South Wales) is jointly owned by the Commonwealth, New South Wales and Queensland Governments. This line was opened for traffic in September 1930. Particulars of operations over the 112 route-miles within New South Wales are included with statistics of the New South Wales system, while those for the remaining sixty-nine route-miles are included with the Queensland system, unless otherwise indicated.

A number of private railways, the majority of which were constructed for mineral haulage, operate in Australia, the more important being from Whyalla to Iron Knob and Iron Baron (South Australia), from Maitland to Cessnock (New South Wales), from Broken Hill (New South Wales) to the South Australian border, and from Burnie to Zeehan (Tasmania). Not all of these railways are open for general traffic. A number of private railways for the haulage of iron ore to various seaports are under construction in the north-west of Western Australia.

In the tables in this division details of the four lines operated by the Commonwealth are grouped and shown with the totals for the various State-owned systems. Separate particulars for each Commonwealth line and more detailed statistics for all lines are shown in the annual bulletin *Transport and Communication*.

An account of the progress of railway construction in Australia since the opening of the first line in 1854 was given in Year Book No. 6, page 681, and in No. 22, page 259. A map showing routes open in Australia in 1965, according to gauge, is shown in Plate 38.

Standardization of railway gauges

Because several adjoining States have systems with different gauges, the flow of interstate rail traffic has been delayed by the need to change trains at intervening break of gauge stations. The first step towards uniform gauge railway communication between the mainland State capitals was effected with the construction of the Uniform Gauge Railway (4 ft. 8½ in. gauge) from South Brisbane to Grafton (see above). For details of the agreement whereby the Commonwealth and the State Governments of New South Wales and Queensland participated in its construction see Year Book No. 31, page 122.

A plan for the further standardization of Australian gauges was made by Sir Harold Clapp in a report submitted to the Commonwealth Government in March 1945. A summary of his report and recommendations and subsequent agreements with the States was published in Year Book No. 37, pages 146-9. Particulars of the agreement between the Commonwealth and South Australian Governments were set out in Year Book No. 51, pages 553-4.

As a further step towards standardization, a committee consisting of members of the Federal Parliament was formed in March 1956 to ascertain whether a scheme confined to the main trunk routes would be desirable. This committee recommended in October 1956 that standard gauge (4 ft. 8½ in.) lines be provided from Wodonga to Melbourne, from Broken Hill to Adelaide via Port Pirie, and from Kalgoorlie to Fremantle via Perth.

Legislation for a standard gauge link between Albury and Melbourne was enacted by the Commonwealth, Victorian and New South Wales Governments in three separate Acts assented to towards the end of 1958. The agreement on this project between the Commonwealth and the

two State Governments provided for the Commonwealth to meet 70 per cent. of the cost of unification and the two States to share equally the remaining 30 per cent. The Commonwealth was required to advance the whole of the necessary funds initially, the States' proportion, plus interest, being repayable over fifty years. The opening of the uniform gauge between Albury and Melbourne in 1962 completed the standard gauge link between South Brisbane and Melbourne, and through services were operated for the first time between Sydney and Melbourne. The final cost of this project, met initially by the Commonwealth, amounted to \$31.9 million. Details of operations are included in the statistics of the various States.

In 1961 the Commonwealth and Western Australian Governments enacted legislation to enter into an agreement to undertake certain standard gauge railway works, including the provision of rolling stock, in Western Australia at an estimated cost of \$82.4 million. The proposal is linked with the establishment of an integrated iron and steel industry at Kwinana in that State, and the new railway facilities will be used to transport iron ore from the Koolyanobbing deposits some thirty-three miles beyond Southern Cross. These railway facilities will also link Kalgoorlie with East Perth and Fremantle by a standard gauge line. It has been agreed that the project has standardization and developmental components in approximately equal parts, and initially the Commonwealth will, in effect, provide finance for all the standardization portion of the works and 70 per cent of the developmental portion. The State will repay with interest 30 per cent of the standardization costs over fifty years and all the advance for developmental works over twenty years. Work on the project commenced in 1962 and is planned to be completed by December 1968.

In 1964 the South Australian Government submitted to the Commonwealth Government a proposal in outline for the standardization of the existing railway line between Port Pirie and Adelaide. The Commonwealth Government has made available \$30,000 to South Australia for the surveying of this link without committing the Commonwealth to any further action.

Route-miles open for traffic

The following table shows the route-mileage of each Government railway system, according to gauge, at 30 June 1965.

GOVERNMENT RAILWAYS: ROUTE-MILEAGE(a) OPEN, SYSTEMS
30 JUNE 1965
 (Miles)

System	Gauge					Total
	5 ft. 3 in.	4 ft. 8½ in.	3 ft. 6 in.	2 ft. 6 in.	2 ft. 0 in.	
New South Wales	..	(b) 6,055	..	..	..	6,055
Victoria	(c) 4,000	202	..	9	..	4,211
Queensland	..	69	5,686	..	30	5,785
South Australia	1,650	..	847	..	..	2,497
Western Australia	..	..	3,733	..	..	3,733
Tasmania	..	..	500	..	..	500
Commonwealth	..	(d) 1,330	(e) 922	..	..	2,252
Australia	5,650	7,656	11,688	9	30	25,033

(a) Mileage of railway irrespective of whether it consists of single or multiple track. Excludes sidings and marshalling yards. (b) Includes 234 route-miles which are electrified. (c) Excludes 202 miles of 5 ft. 3 in. gauge line which almost parallels the uniform gauge (4 ft. 8½ in.) line between Albury and Melbourne. Includes 263 route-miles which are electrified. (d) Trans-Australian Railway, Australian Capital Territory Railway and portion of Central Australia Railway. (e) North Australia Railway and portion of Central Australia Railway.

As the Commonwealth systems include mileages in South and Western Australia, and the Victorian system extends into New South Wales, the system route-mileages shown in the previous table do not represent mileages within each State and Territory. The mileages within each State and Territory at 30 June 1965 are shown in the next table.

GOVERNMENT RAILWAYS: ROUTE-MILEAGE OPEN, STATES AND TERRITORIES, 30 JUNE 1965

(Miles)

Gauge	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
5 ft. 3 in.	(a) 204	(b) 3,796	..	1,650	..	..	..	..	5,650
4 ft. 8½ in.	6,055	202	69	(c) 871	(d) 454	..	..	(e) 5	7,656
3 ft. 6 in. . . . .	..	..	5,686	(f) 1,279	3,733	500	(g) 490	..	11,688
2 ft. 6 in. . . . .	..	9	..	..	..	..	..	..	9
2 ft. 0 in. . . . .	..	..	30	..	..	..	..	..	30
Total	6,259	4,007	5,785	3,800	4,187	500	490	5	25,033
Per 1,000 of population . . .	1.49	1.25	3.59	3.60	5.20	1.37	14.08	0.06	2.20
Per 1,000 square miles . . .	20.23	45.59	8.67	10.00	4.29	18.95	0.94	5.32	8.43

(a) Portion of Victorian system. (b) Excludes 202 miles of 5 ft. 3 in. gauge line which almost parallels the uniform gauge (4 ft. 8½ in.) line between Albury and Melbourne. (c) Includes 654 miles of Trans-Australian and 217 miles of the Central Australia Railway systems. (d) Portion of Trans-Australian Railway system. (e) Australian Capital Territory Railway system. (f) Includes 432 miles of the Central Australia Railway system. (g) Includes 173 miles of the Central Australia and 317 miles of the North Australia Railway systems.

The following table sets out route-mileages of Government railways in each State and Territory at various dates since the inauguration of railways in Australia in 1854.

GOVERNMENT RAILWAYS: ROUTE-MILEAGE OPEN, STATES AND TERRITORIES, 1855 TO 1965

(Miles)

At 30 June—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1855(a)	14	2	..	7	..	..	..	..	23
1861(a)	73	114	..	56	..	..	..	..	243
1871(a)	358	276	218	133	..	45	..	..	1,030
1881(a)	996	1,247	800	832	92	45	..	..	4,012
1891	2,182	2,763	2,195	1,666	198	351	145	..	9,500
1901	2,846	3,237	2,801	1,736	1,355	457	145	..	12,577
1911	3,762	3,523	3,868	1,935	2,376	470	145	..	16,079
1921	5,043	4,267	5,752	3,408	3,992	630	199	5	23,296
1931	6,247	4,514	6,529	3,725	4,634	665	317	5	26,636
1941	6,368	4,518	6,567	3,809	4,835	642	490	5	27,234
1951	6,354	4,445	6,560	3,805	4,682	613	490	5	26,954
1961	6,303	4,050	6,324	3,836	4,577	517	490	5	26,102
1965	6,259	4,007	5,785	3,800	4,187	500	490	5	25,033

(a) At 31 December.

Summary of operations

The following table shows a summary of the operations of the Australian Government railway systems during 1964-65.

GOVERNMENT RAILWAYS: SUMMARY OF OPERATIONS, SYSTEMS, 1964-65

System	Revenue train-miles (a)	Passenger journeys (b)	Passenger-miles (c)	Goods and livestock	
				Tons carried(b)	Ton-miles(d)
	'000	'000	'000	'000	'000
New South Wales	40,194	238,732	n.a.	27,889	4,705,996
Victoria	20,489	149,753	1,682,960	12,596	2,028,201
Queensland	17,605	25,215	n.a.	10,031 (e)	1,751,465
South Australia	6,582	15,196	216,067	5,089	765,366
Western Australia	7,562	10,395	137,888	5,229	842,066
Tasmania	1,272	1,340	19,563	1,091	116,566
Commonwealth	2,914	347	120,947	2,919	885,823
Australia(b)	96,618	440,978	n.a.	64,844	(e) 11,095,483

(a) One train (i.e. a complete unit of locomotive and vehicles, electric train set, or rail motor) travelling one mile for revenue purposes. (b) Inter-system traffic is included in the total for each system (including each Commonwealth Railway) over which it passes. (c) One passenger travelling one mile. (d) One ton carried one mile. (e) Excludes Queensland portion of Uniform Gauge Railway.

Gross earnings

Gross earnings are composed of earnings from (a) coaching traffic, including the carriage of passengers, mails, horses, parcels, etc., by passenger trains; (b) carriage of goods and livestock; and (c) rents and miscellaneous items. In this section particulars of State Government grants are excluded. Details of these grants made during 1964-65 are shown on page 463.

In the following table gross earnings are shown for the years 1960-61 to 1964-65, together with earnings per average route-mile worked and per revenue train-mile.

GOVERNMENT RAILWAYS: GROSS EARNINGS, SYSTEMS, 1960-61 TO 1964-65

Year	System							Aust.
	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Cwlth	
Gross earnings (\$'000)—								
1960-61	179,502	85,974	73,060	27,740	32,634	5,464	12,072	416,446
1961-62	176,702	85,114	72,318	27,848	35,098	5,406	12,482	414,968
1962-63	182,482	86,878	75,244	27,672	32,920	5,598	13,958	474,752
1963-64	202,488	92,778	84,260	29,496	34,602	5,668	15,194	464,486
1964-65	213,258	100,225	81,321	29,764	35,715	5,581	17,419	483,283
Gross earnings per average route-mile worked (\$)—								
1960-61	29,612	20,040	11,502	10,952	7,916	10,254	5,360	15,928
1961-62	29,144	19,836	11,834	10,998	9,114	10,478	5,544	16,200
1962-63	30,138	20,370	12,382	10,930	8,670	10,850	6,198	16,660
1963-64	33,442	21,872	13,908	11,732	9,410	11,248	6,746	18,358
1964-65	35,220	23,801	14,057	11,882	9,567	11,162	7,735	19,300
Gross earnings per revenue train-mile (cents)—								
1960-61	473.64	471.56	398.97	401.74	417.38	360.42	515.26	447.67
1961-62	471.87	450.27	411.76	413.36	435.18	381.97	508.81	448.21
1962-63	488.42	446.05	419.13	411.39	435.99	423.39	547.60	457.02
1963-64	518.16	461.27	439.75	442.47	460.97	428.67	569.45	481.26
1964-65	530.56	489.17	461.91	452.20	472.31	438.62	597.85	500.20

The following table shows gross earnings for the year 1964-65 classified according to the three main sources of earnings together with the percentage of the total derived from each source.

GOVERNMENT RAILWAYS: DISTRIBUTION OF GROSS EARNINGS SYSTEMS, 1964-65

System	Gross earnings (\$'000)			Proportion of total (per cent)		
	Coaching	Goods and livestock	Miscellaneous	Coaching	Goods and livestock	Miscellaneous
New South Wales	48,682	154,543	10,033	22.83	72.47	4.70
Victoria	30,851	63,361	6,013	30.78	63.22	6.00
Queensland	9,086	69,696	2,539	11.17	85.71	3.12
South Australia	4,338	23,096	2,330	14.57	77.60	7.83
Western Australia	3,573	30,688	1,454	10.01	85.92	4.07
Tasmania	358	5,019	204	6.41	89.94	3.65
Commonwealth	2,695	13,593	1,131	15.48	78.03	6.49
Australia	99,583	359,996	23,704	20.61	74.48	4.91

Working expenses

In comparing the working expenses of the various railway systems, allowances should be made for the variation in gauges, terrain, traffic handled and method of operation. In addition to variations between systems there are also variations on different portions of the same system. Working expenses, wherever presented in the Railways section of this chapter, include reserves for depreciation in the South Australian, Western Australian, Tasmanian and Commonwealth systems but exclude interest, sinking fund, exchange and certain other payments (see page 463).

The following table shows the total working expenses, the ratio of working expenses to gross earnings, and working expenses per average route-mile worked, and per revenue train-mile for the years 1960-61 to 1964-65.

GOVERNMENT RAILWAYS: WORKING EXPENSES, SYSTEMS 1960-61 TO 1964-65

Year	System							Aust.
	N.S.W.	Vic.	Qld	S.A. (a)	W.A. (a)	Tas. (a)	Cwlth (a)	
Working expenses (\$'000)—								
1960-61	159,112	83,254	77,058	30,620	34,294	7,090	(b)9,258	400,686
1961-62	159,190	85,812	76,170	31,206	34,908	6,878	b 10,330	404,494
1962-63	158,652	87,000	75,436	30,984	34,606	6,670	13,286	406,634
1963-64	177,416	91,512	78,288	30,910	35,802	6,894	14,218	435,040
1964-65	187,240	99,337	80,513	31,713	36,529	7,219	15,967	458,518
Ratio of working expenses to gross earnings (%)—								
1960-61	88.64	96.84	105.47	110.38	105.08	129.75	(b)76.68	96.22
1961-62	90.09	100.82	105.33	112.06	99.46	127.21	(b)82.75	97.47
1962-63	86.94	100.14	100.25	111.97	105.13	119.13	95.19	95.73
1963-64	87.62	98.64	92.91	104.80	103.47	121.61	93.58	93.66
1964-65	87.79	99.11	99.01	106.55	102.28	129.35	91.66	94.87
Working expenses per average route-mile worked (\$)—								
1960-61	26,248	19,406	12,132	12,088	8,318	13,304	(b)4,110	15,326
1961-62	26,256	19,998	12,464	12,324	9,064	13,330	(b)4,588	15,790
1962-63	26,202	20,198	12,414	12,238	9,114	12,926	5,900	15,950
1963-64	29,300	21,572	12,922	12,296	9,736	13,678	6,314	17,194
1964-65	30,923	23,590	13,917	12,660	9,785	14,438	7,090	18,311
Working expenses per revenue train-mile (cents)—								
1960-61	419.84	456.65	420.80	443.46	438.61	467.64	b395.12	430.73
1961-62	425.11	453.96	433.68	463.21	432.82	485.91	b421.06	436.90
1962-63	424.64	446.68	420.20	460.63	458.34	504.39	521.27	437.53
1963-64	454.00	454.97	408.58	463.70	476.96	521.30	532.87	450.75
1964-65	465.83	484.83	457.32	481.82	483.07	567.37	548.02	474.57

(a) Includes provision for depreciation. (b) Excludes provision for depreciation which was not charged to working expenses.

The following table shows the total working expenses for the year 1964-65 classified according to the four main expenditure headings.

**GOVERNMENT RAILWAYS: DISTRIBUTION OF WORKING EXPENSES
SYSTEMS, 1964-65**
(\$'000)

System	Maintenance of way and works	Motive power(a)	Traffic	Other charges	Total working expenses
New South Wales . . .	31,313	62,232	43,023	50,672	187,240
Victoria . . .	18,851	29,071	27,664	23,751	99,337
Queensland . . .	20,745	34,943	20,068	4,757	80,513
South Australia . . .	(b) 7,106	(b) 11,836	(b) 8,688	4,083	31,713
Western Australia . . .	(b) 8,154	(b) 15,594	8,551	4,230	36,529
Tasmania(b) . . .	1,792	2,605	1,918	904	7,219
Commonwealth . . .	5,161	4,324	2,543	(b) 3,939	15,967
Australia . . .	93,122	160,605	112,455	92,336	458,518

(a) Includes maintenance of rolling stock. (b) Includes provision for depreciation.

Net earnings

The following table shows, for the years 1960-61 to 1964-65, net earnings, i.e., the excess of gross earnings over working expenses and the amount of such net earnings per average route-mile worked and per revenue train-mile.

GOVERNMENT RAILWAYS: NET EARNINGS, SYSTEMS, 1960-61 TO 1964-65

Year	System							Aust.
	N.S.W.	Vic.	Qld	S.A. (a)	W.A. (a)	Tas. (a)	Cwth (a)	
Net earnings (\$'000)—								
1960-61 . . .	20,390	2,720	-3,998	-2,880	-1,660	-1,626	(b) 2,814	15,760
1961-62 . . .	17,512	- 698	-3,852	-3,358	190	-1,472	(b) 2,152	10,474
1962-63 . . .	23,830	- 122	- 192	-3,312	-1,686	-1,072	672	18,118
1963-64 . . .	25,072	1,266	5,972	-1,414	-1,200	-1,226	976	29,446
1964-65 . . .	26,018	888	808	-1,949	- 814	-1,638	1,452	24,765
Net earnings per average route-mile worked (\$)—								
1960-61 . . .	3,364	634	- 630	-1,136	- 402	-3,050	(b) 1,250	602
1961-62 . . .	2,888	- 162	- 630	-1,326	50	-2,852	(b) 956	410
1962-63 . . .	3,936	- 28	- 32	-1,308	- 444	-2,076	298	710
1963-64 . . .	4,142	300	986	- 564	- 326	-2,430	432	1,164
1964-65 . . .	4,297	211	140	- 778	- 218	-3,276	645	989
Net earnings per revenue train-mile (cents)—								
1960-61 . . .	53.80	14.91	-21.83	-41.72	-21.23	-107.22	(b)120.14	16.94
1961-62 . . .	46.76	- 3.69	-21.92	-49.85	2.36	-103.94	(b) 87.75	11.31
1962-63 . . .	63.78	- 0.63	- 1.07	-49.24	-22.35	- 81.00	26.33	19.49
1963-64 . . .	64.16	6.30	31.17	-21.23	-15.99	- 92.63	36.58	30.51
1964-65 . . .	64.73	4.34	4.59	-29.62	-10.76	-128.75	49.83	25.63

(a) Includes provision for depreciation, (b) Excludes provision for depreciation.
Minus sign (-) denotes loss.

Net earnings, grants to railways, interest, sinking fund, surplus or deficit, 1964-65

The following table shows, for each railway system for the year 1964-65, (i) net earnings as above, (ii) State grants and other items credited to railways accounts, (iii) loan interest, exchange, sinking fund, etc., payments charged against the accounts, and (iv) the net surplus or deficit after these items have been taken into account. Particulars of items (ii) to (iv) are not included in the preceding tables in this section.

The figures shown in this table accord with those published in the Annual Reports of the Railways Commissioners of the several systems. Because of the differences in governmental practice concerning costs other than operative charged against railway accounts, compensation for non-paying and developmental lines, etc., and the inclusion in some railways finances of the operations of ancillary transport services, direct comparison cannot be made between the results

shown in the table. For further information on railways finance, in particular expenditure from loan and other funds, see the chapter Public Finance of this Year Book. See also the Reports of the several Railways Commissioners.

GOVERNMENT RAILWAYS: SURPLUS OR DEFICIT OF EACH SYSTEM AT 30 JUNE 1965

(\$)

System	Net earnings—excess of gross earnings over working expenses(a)	Plus grants and other income	Less other expenses charged to railways					Surplus (+) or deficit (—)
			Loan interest and exchange	Sinking fund	Loan management expenses	Other	Total	
State—								
N.S.W.	26,017,876	b 3,200,000	23,491,400	5,068,660	69,200	(c) 412,600	29,041,860	176,016
Victoria	888,462	(d) 27,528	e 3,046,656	(e) 136,548	..	(f) 62,892	3,245,496	—2,329,506
Queensland	808,342	(g) 286,766	h 13,945,352	..	..	(i) 1,033,408	14,978,760	j—13,883,652
S. Australia	—1,949,288	k 8,005,304	4,992,704	..	..	(l) 190,722	5,183,426	872,590
W. Australia	—813,858	195,526	6,201,716	..	..	..	6,201,716	—6,820,048
Tasmania	—1,638,216	..	909,790	..	..	(m) 13,620	923,410	—2,561,626
Total, States	23,313,318	11,715,124	52,587,018	5,205,208	69,200	1,713,242	59,574,668	—24,546,226
Commonwealth	1,451,992	..	..	..	..	..	..	1,451,992
Australia	24,765,310	11,715,124	52,587,018	5,205,208	69,200	1,713,242	59,574,668	—23,094,234

(a) See p. 462. (b) Grants to meet losses on country development lines, \$1,600,000, and to subsidize payments due from superannuation account, \$1,600,000. (c) Loan flotation expenses. (d) Kerang-Koondrook Tramway road motor services not included in previous pages. (e) Payments required in respect of loan expenditure since 1 July 1960. (f) Net loss on Gauge Railway as included in foregoing tables. (g) Adjustment for deficit on Queensland portion of Uniform Gauge Railway as included in foregoing tables. (h) Includes interest and redemption—Mt. Isa project fund, \$3,485,278. (i) Interest on unopened lines, \$350,142; demolished assets written off, \$683,266. (j) Excludes Queensland portion of Uniform Gauge Railway. (k) Grants towards working expenses \$6,400,000, and debt charges, \$1,600,000; and surplus from road motor services, \$5,304. (l) Interest and repayment under Railways Standardization Agreement. (m) Obsolete and other stocks written off.

Traffic

The following table shows particulars of railway passenger and goods traffic for the years 1960–61 to 1964–65.

GOVERNMENT RAILWAYS: TRAFFIC, SYSTEMS, 1960-61 TO 1964-65

Year	System							Aust.
	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Cwth	
Passenger-journeys (a) (b) (‘000)—								
1960–61	235,416	149,929	28,876	15,574	12,661	2,103	303	444,862
1961–62	234,638	152,768	26,700	15,176	11,906	1,816	315	443,319
1962–63	235,169	152,727	26,081	14,922	11,537	1,558	334	442,328
1963–64	240,677	153,396	25,903	15,227	10,814	1,426	338	447,781
1964–65	238,732	149,753	25,215	15,196	10,395	1,340	347	440,978
Passenger-journeys per average route-mile worked (number)—								
1960–61	38,835	34,948	4,546	6,147	3,071	3,946	134	17,015
1961–62	38,700	35,602	4,369	5,994	3,092	3,519	140	17,306
1962–63	38,839	35,809	4,292	5,893	3,038	3,018	148	17,350
1963–64	39,748	36,161	4,276	6,057	2,941	2,828	150	17,697
1964–65	39,427	35,562	4,359	6,066	2,785	2,680	154	17,610
Goods and livestock carried(b) (‘000 tons)—								
1960–61	24,104	10,977	7,981	4,515	4,833	1,192	1,738	55,340
1961–62	24,050	10,350	8,153	4,616	5,342	1,096	1,958	55,565
1962–63	23,641	10,841	8,736	4,503	4,793	1,165	2,230	55,909
1963–64	25,814	12,132	9,796	5,179	5,187	1,155	2,478	61,741
1964–65	27,889	12,596	10,031	5,089	5,229	1,091	2,919	64,844
Goods and livestock carried per average route-mile worked (tons)—								
1960–61	3,976	2,559	1,256	1,791	1,172	2,236	772	2,118
1961–62	3,967	2,412	1,334	1,823	1,387	2,124	869	2,169
1962–63	3,904	2,542	1,438	1,778	1,262	2,257	990	2,193
1963–64	4,263	2,860	1,617	2,060	1,411	2,291	1,100	2,440
1964–65	4,606	2,991	1,734	2,032	1,401	2,181	1,296	2,589

(a) Suburban and country—based on ticket sales, making allowances for periodical tickets. Tickets sold at concession rates are counted as full journeys. (b) Inter-system traffic is included in the total for each system (including each Commonwealth Railway) over which it passes.

Passenger traffic

With the exception of the Commonwealth railway systems, which operate only country services, all systems provide both suburban and country passenger services. Traffic classed as 'suburban' moves between stations within a classified suburban area around each capital city, while traffic classed as 'country' originates or terminates at stations outside this suburban area. Particulars of suburban and country passenger traffic are shown separately in the two tables following.

Suburban passenger traffic. The following table shows a summary of suburban passenger operations for the years 1960-61 to 1964-65. Most of the suburban services in New South Wales and Victoria are operated within electrified areas.

**GOVERNMENT RAILWAYS: SUBURBAN PASSENGER SUMMARY, SYSTEMS
1960-61 TO 1964-65**

Year	Suburban passenger-journeys (a)	Suburban passenger train-miles	Suburban passenger-miles	Average number of passengers per train-mile	Average mileage per passenger-journey	Suburban passenger earnings			
						Gross	Per passenger-journey	Per passenger-mile	Per passenger train-mile
	('000)	('000)	('000)		(miles)	(\$'000)	(cents)	(cents)	(cents)
New South Wales system—									
1960-61	222,333	11,176	n.a.	n.a.	n.a.	25,510	11.47	n.a.	228
1961-62	221,861	11,250				25,490	11.49	n.a.	227
1962-63	221,960	10,915				25,672	11.57	n.a.	235
1963-64	227,319	10,939				26,346	11.59	n.a.	241
1964-65	225,420	10,888				26,163	11.61	n.a.	240
Victorian system—									
1960-61	145,558	7,902	1,282,975	162	8.81	17,770	12.21	1.38	225
1961-62	147,977	8,296	1,299,379	157	8.78	18,012	12.17	1.38	217
1962-63	147,587	8,303	1,302,094	157	8.82	17,978	12.18	1.38	217
1963-64	148,314	8,369	1,315,105	157	8.87	18,056	12.17	1.37	216
1964-65	144,846	8,480	1,279,320	151	8.83	19,837	13.70	1.55	234
Queensland system—									
1960-61	24,582	2,009	n.a.	n.a.	n.a.	1,924	7.82	n.a.	96
1961-62	22,890	1,850				1,954	8.54	n.a.	106
1962-63	22,413	1,706				1,932	8.62	n.a.	113
1963-64	22,512	1,742				1,924	8.55	n.a.	111
1964-65	22,254	1,778				1,896	8.52	n.a.	107
South Australian system—									
1960-61	14,584	2,082	117,423	56	8.05	1,590	10.90	1.35	77
1961-62	14,211	1,962	114,852	59	8.08	1,562	10.99	1.36	80
1962-63	13,978	1,941	115,219	59	8.24	1,578	11.29	1.37	82
1963-64	14,332	1,967	120,110	61	8.38	1,634	11.40	1.36	83
1964-65	14,326	1,951	119,232	61	8.32	1,711	11.94	1.43	88
Western Australian system—									
1960-61	12,026	1,357	82,612	61	6.87	968	8.04	1.17	72
1961-62	11,308	1,355	78,469	58	6.94	938	8.29	1.19	69
1962-63	10,937	1,334	76,312	57	6.98	924	8.44	1.21	69
1963-64	10,298	1,368	71,468	52	6.94	954	9.27	1.33	70
1964-65	9,911	1,375	69,824	51	7.05	977	9.86	1.40	71
Tasmanian system—									
1960-61	1,859	202	11,018	54	5.93	110	5.88	0.99	54
1961-62	1,585	188	9,778	52	6.17	112	7.01	1.13	59
1962-63	1,347	135	8,385	62	6.23	98	7.25	1.17	72
1963-64	1,229	137	7,664	56	6.24	90	7.33	1.17	66
1964-65	1,135	136	7,208	53	6.35	84	7.38	1.16	61

(a) See footnote (a) to table on page 463.

Country passenger traffic. The following table shows a summary of country passenger operations for the years 1960-61 to 1964-65.

**GOVERNMENT RAILWAYS: COUNTRY PASSENGER SUMMARY, SYSTEMS
1960-61 TO 1964-65**

Year	Country passenger-journeys (a)	Country passenger-train-miles (b)	Country passenger-miles (c)	Average number of passengers per train-mile (c)	Average mileage per passenger-journey (miles)	Country passenger earnings			
						Gross (\$'000)	Per passenger-journey (cents)	Per passenger-mile (cents)	Per passenger-train-mile (d) (cents)
	('000)	('000)	('000)						
New South Wales system—									
1960-61	13,083	10,206	n.a.	n.a.	n.a.	13,650	104.32	n.a.	133
1961-62	12,777	10,410				13,896	108.76	n.a.	133
1962-63	13,209	10,475				14,832	112.27	n.a.	142
1963-64	13,358	10,576				15,298	114.53	n.a.	145
1964-65	13,312	10,461				15,571	116.97	n.a.	149
Victorian system—									
1960-61	4,371	4,482	388,258	87	88.84	6,496	148.62	1.67	145
1961-62	4,791	4,726	413,435	87	86.31	6,946	145.01	1.68	147
1962-63	5,140	4,829	418,887	87	81.50	7,062	137.41	1.68	147
1963-64	5,082	4,835	410,830	85	80.84	7,082	139.35	1.72	147
1964-65	4,907	4,837	403,640	83	82.26	7,553	153.91	1.87	156
Queensland system—									
1960-61	4,294	4,869	n.a.	n.a.	n.a.	4,812	112.08	n.a.	99
1961-62	3,810	4,714				4,756	124.79	n.a.	101
1962-63	3,668	4,689				4,698	128.09	n.a.	100
1963-64	3,391	4,608				4,450	131.22	n.a.	97
1964-65	2,961	4,092				4,140	139.81	n.a.	101
South Australian system—									
1960-61	990	2,039	100,683	49	101.69	1,644	166.09	1.63	82
1961-62	965	2,043	100,591	49	104.24	1,676	173.75	1.67	82
1962-63	944	2,014	99,761	50	105.69	1,692	179.32	1.70	84
1963-64	895	1,954	96,877	50	108.20	1,658	185.11	1.71	85
1964-65	870	1,944	96,835	50	111.32	1,665	191.44	1.72	86
Western Australian system—									
1960-61	635	1,254	73,900	59	116.34	1,282	201.76	1.73	102
1961-62	598	1,184	74,230	63	124.12	1,342	224.25	1.81	113
1962-63	600	1,121	75,684	67	126.19	1,338	223.09	1.77	119
1963-64	516	982	66,753	68	129.39	1,342	260.31	2.01	137
1964-65	484	984	68,064	69	140.64	1,469	303.44	2.16	149
Tasmanian system—									
1960-61	244	323	12,940	40	53.10	160	65.49	1.23	49
1961-62	231	324	12,745	39	55.10	160	68.90	1.25	49
1962-63	211	318	12,255	39	58.19	156	74.27	1.27	49
1963-64	197	314	11,380	36	57.98	144	73.16	1.26	46
1964-65	205	263	12,355	47	60.27	140	68.52	1.14	54
Commonwealth system—									
1960-61	303	825	93,540	113	309.07	1,676	553.76	1.79	203
1961-62	315	923	100,604	109	319.15	1,808	573.81	1.80	196
1962-63	334	939	107,991	115	322.99	1,914	572.16	1.77	203
1963-64	338	898	107,005	119	316.20	1,916	565.96	1.79	213
1964-65	347	907	120,977	133	348.89	2,172	626.37	1.80	240

(a) See footnote (a) to table on page 463. (b) Includes a proportion of mixed train-miles. (c) Passenger-miles divided by passenger train-miles inclusive of a proportion of mixed train-miles. (d) Passenger earnings divided by passenger train-miles inclusive of a proportion of mixed train-miles.

Freight traffic

The following table shows the quantities of various commodities carried on the various systems and the earnings derived during 1964-65.

**GOVERNMENT RAILWAYS: COMMODITIES CARRIED AND EARNINGS
SYSTEMS, 1964-65**

System	Coal, coke and briquettes	Other minerals (a)	Agri- cultural produce (b)	Wool	Live- stock	All other commo- dities	Total
QUANTITY CARRIED(c) (⁰ 000 tons)							
New South Wales	10,825	2,613	4,441	239	565	9,206	27,889
Victoria	2,198	136	3,581	136	359	6,186	12,596
Queensland	2,810	1,015	3,344	50	665	2,147	10,031
South Australia	12	1,420	1,273	36	142	2,206	5,089
Western Australia	758	868	1,533	86	101	1,883	5,229
Tasmania	120	29	47	3	20	872	1,091
Commonwealth	1,933	63	40	4	91	788	2,919
Australia	18,656	6,144	14,259	554	1,943	23,288	64,844

FREIGHT EARNINGS (⁰ 000)							
New South Wales	n.a.	n.a.	n.a.	n.a.	6,294	n.a.	154,543
Victoria	6,773	399	18,684	1,231	2,152	34,122	63,361
Queensland	9,460	4,932	15,079	1,807	8,353	30,065	69,696
South Australia	34	6,881	4,452	369	954	10,406	23,096
Western Australia	2,473	1,921	8,028	1,256	770	16,240	30,688
Tasmania	511	61	208	31	108	4,100	5,019
Commonwealth ¹	2,211	413	408	56	530	9,975	13,593
Australia	n.a.	n.a.	n.a.	n.a.	19,161	n.a.	359,996

(a) Includes sand and gravel. (b) Includes wheat and fruit. (c) See footnote (b) to table on page 463.

A summary of freight traffic on each railway system for each of the years 1960-61 to 1964-65 is shown in the following table.

GOVERNMENT RAILWAYS: FREIGHT SUMMARY, SYSTEMS, 1960-61 TO 1964-65

Year	Revenue goods train-miles	Revenue net ton-miles	Average train load (paying traffic)	Average haul per ton	Goods and livestock earnings				Density of traffic
	(a)		(b)	(c)	Gross	Per average route-mile worked	Per revenue net ton-mile	Per revenue goods train-mile	(e)
	('000)	(million)	(tons)	(miles)	(\$'000)	(\$)	(cents)	(cents)	('000)
New South Wales system—									
1960-61 . . .	16,516	3,613	219	150	126,116	20,804	3.49	763	596
1961-62 . . .	15,786	3,576	227	149	122,848	20,262	3.43	778	590
1962-63 . . .	15,971	3,743	234	158	126,646	20,916	3.38	793	618
1963-64 . . .	17,563	4,282	244	166	144,646	23,888	3.37	823	707
1964-65 . . .	18,845	4,706	250	169	154,543	25,523	3.28	820	777
Victorian system—									
1960-61 . . .	5,847	1,612	276	147	53,164	12,392	3.30	909	376
1961-62 . . .	5,880	1,581	269	153	51,466	11,994	3.26	875	368
1962-63 . . .	6,345	1,693	267	156	53,016	12,430	3.13	836	397
1963-64 . . .	6,909	1,906	276	157	58,730	13,846	3.08	850	449
1964-65 . . .	7,172	2,028	283	161	63,361	15,047	3.12	883	482
Queensland system									
1960-61 . . .	11,267	1,472	131	195	59,606	9,486	4.05	529	234
1961-62 . . .	10,832	1,461	135	189	58,934	9,754	4.03	544	242
1962-63 . . .	11,375	1,559	137	190	62,008	10,320	3.97	545	260
1963-64 . . .	12,604	1,841	146	200	70,828	11,826	3.85	562	307
1964-65 . . .	11,528	1,751	152	187	68,102	11,914	3.89	591	306

For footnotes see next page.

GOVERNMENT RAILWAYS: FREIGHT SUMMARY, SYSTEMS, 1960-61 TO 1964-65
—continued

Year	Revenue goods train-miles (a)	Revenue net ton-miles	Average train load (paying traffic) (b)	Average haul per ton (c)	Goods and livestock earnings				Density of traffic (e)
					Gross	Per average route-mile worked	Per revenue net ton-mile	Per revenue goods train-mile (d)	
	('000)	(million)	(tons)	(miles)	(\$'000)	(\$)	(cents)	(cents)	('000)
South Australian system—									
1960-61	2,784	645	232	142	21,812	8,610	3.38	783	255
1961-62	2,733	650	238	141	21,760	8,594	3.35	797	257
1962-63	2,771	679	245	151	21,494	8,488	3.17	776	268
1963-64	2,745	754	275	146	23,170	9,216	3.07	844	300
1964-65	2,687	765	285	150	23,096	9,220	3.02	860	306
Western Australian system—									
1960-61	5,208	748	144	155	27,880	6,762	3.73	535	181
1961-62	5,526	831	150	156	30,228	7,850	3.63	547	216
1962-63	5,095	762	150	159	28,126	7,408	3.69	552	201
1963-64	5,156	813	158	157	29,788	8,100	3.66	577	221
1964-65	5,203	842	162	161	30,688	8,221	3.64	590	226
Tasmanian system—									
1960-61	991	114	115	95	4,912	9,202	4.32	496	213
1961-62	903	107	119	98	4,822	9,346	4.51	534	207
1962-63	869	112	129	96	5,044	9,774	4.51	580	217
1963-64	871	114	131	99	5,138	10,192	4.51	590	226
1964-65	873	117	133	107	5,019	10,039	4.31	575	233
Commonwealth system—									
1960-61	1,519	549	362	316	9,074	4,030	1.65	597	244
1961-62	1,530	581	380	297	9,342	4,148	1.61	611	258
1962-63	1,610	664	412	298	10,662	4,734	1.61	662	295
1963-64	1,770	744	421	300	11,832	5,254	1.59	668	331
1964-65	2,007	886	441	303	13,593	6,036	1.53	677	393

(a) Includes a proportion of mixed train-miles. (b) Net ton-miles per goods (including a portion of mixed) train-mile. (c) Net ton-miles per ton carried. (d) Goods and livestock earnings divided by goods train-miles, inclusive of a proportion of mixed train-miles. (e) Total net ton-miles per average route-mile worked. (f) Excludes Queensland portion of Uniform Gauge Railway.

Rolling stock

The following table shows the number of rolling stock on capital account of Government railways at 30 June 1965.

GOVERNMENT RAILWAYS: ROLLING STOCK(a), SYSTEMS, 30 JUNE 1965

System	Locomotives					Coaching stock(c)	Goods stock	Service stock
	Steam	Diesel-electric	Electric	Other (b)	Total			
New South Wales	534	241	41	22	838	(d) 3,451	(d) 20,290	(e) 2,219
Victoria	220	161	35	69	485	(d) 2,418	(d) 21,137	(d) 1,676
Queensland	613	139	..	11	763	1,402	23,701	2,018
South Australia	151	97	..	..	248	(d) 586	7,818	(d) 526
Western Australia	240	94	..	17	351	519	11,875	1,041
Tasmania	20	37	..	20	77	136	2,337	174
Commonwealth	4	52	..	8	64	154	1,607	489
Australia	1,782	821	76	147	2,826	(f) 8,777	(f) 88,781	(f) 8,144

(a) Included in capital account. (b) Includes non-passenger-carrying diesel power vans. (c) Includes all brake vans. (d) Excludes stock jointly owned with other systems. (e) Includes vehicles not having a capital value. (f) Includes jointly owned stock.

The following table shows the numbers of rolling stock on capital account for all railway systems at 30 June of each of the years 1961 to 1965.

GOVERNMENT RAILWAYS: ROLLING STOCK(a), AUSTRALIA, 1961 TO 1965

30 June—	Locomotives					Coach- ing stock(c)	Goods stock	Service stock
	Steam	Diesel- electric	Electric	Other(b)	Total			
1961 . . .	2,651	491	76	109	3,327	9,172	92,455	6,896
1962 . . .	2,456	541	76	123	3,196	9,177	91,094	7,976
1963 . . .	2,215	608	76	132	3,031	8,969	90,020	7,960
1964 . . .	1,981	694	76	140	2,891	8,829	88,929	7,944
1965 . . .	1,782	821	76	147	2,826	8,777	88,781	8,144

(a) Included in capital account. (b) Includes non-passenger-carrying diesel power vans. (c) Includes all brake vans.

Accidents

The following table shows particulars of the number of persons killed or injured through train accidents and the movement of rolling stock on the Government railways of Australia during 1964-65.

GOVERNMENT RAILWAYS: ACCIDENTS(a), SYSTEMS, 1964-65

—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Cwlth	Aust.
Persons killed . . .	53	48	23	9	10	1	..	144
Persons injured . . .	743	638	181	39	76	8	11	1,696

(a) Excludes accidents to railway employees.

Consumption of coal, oil and petrol

The following table shows the value of coal, oil and petrol consumed by the various Government railways during 1964-65.

**GOVERNMENT RAILWAYS: VALUE OF COAL, OIL AND PETROL
CONSUMED, SYSTEMS, 1964-65
(\$'000)**

System	Coal		Oil				Petrol for rail cars
	Loco- tives	Other purposes	Diesel(a)	Fuel(b)	Lubri- cation	Other purposes	
New South Wales	(c)	(c)	3,426	168	428	310	..
Victoria . . .	1,033	39	1,324	612	231	224	..
Queensland . .	1,998	66	1,542	..	91	217	..
South Australia .	262	34	809	59	n.a.	n.a.	(d)
Western Australia	1,047	21	618	..	250	177	9
Tasmania . . .	8	1	161	..	30	11	..
Commonwealth .	1	2	641	..	70	92	1

(a) Used in internal combustion engines of locomotives and rail cars. (b) Used in oil-fired furnaces of steam locomotives. (c) Not available. The quantity of coal used was 635,763 tons for locomotives and 13,326 tons for other purposes. (d) Less than \$500.

Staff employed and salaries and wages paid

The following table shows details of the average staff employed and the salaries and wages paid by the government railways of Australia during 1964-65.

GOVERNMENT RAILWAYS: AVERAGE NUMBER OF EMPLOYEES, AND SALARIES AND WAGES PAID, SYSTEMS, 1964-65

System	Operating staff			Construction staff			Total salaries and wages paid (\$'000)	Average earnings per employee (\$)
	Salaried	Wages	Total	Salaried	Wages	Total		
New South Wales	9,136	37,502	46,638	..	..	..	125,017	2,681
Victoria	(a) 5,319	(a) 22,593	(a) 27,912	(b)	(b)	(b)	75,667	2,711
Queensland(c)	4,264	21,345	25,609	10	210	220	64,874	2,512
South Australia	1,791	6,284	8,075	25	1,002	1,027	23,780	2,613
Western Australia	2,026	9,578	11,604	..	..	..	27,520	2,372
Tasmania	377	1,837	2,214	26	123	149	5,355	2,266
Commonwealth	473	2,337	2,810	..	..	..	8,422	2,997
Australia	23,386	101,476	124,862	61	1,335	1,396	330,635	2,619

(a) Includes construction staff. (b) Included with operating staff. (c) Excludes Queensland portion of Uniform Gauge Railway.

TRAMWAY, TROLLEY-BUS AND OMNIBUS SERVICES

Systems in operation

Tramway and trolley-bus. Since 1 April 1947 all systems have been operated by government or municipal authorities. During the year 1964-65, tramway systems were in operation in the following cities: Melbourne, Bendigo, and Ballarat, Victoria; Brisbane, Queensland; and Adelaide, South Australia. Trolley-bus services operated in Brisbane, Queensland; Perth, Western Australia; and Hobart and Launceston, Tasmania. All systems were electric.

In many parts of Australia private lines used for special purposes in connection with the timber, mining, sugar, or other industries are often called tramways, but they are more properly railways, and the traffic on them has nothing in common with that of the street tramways for the convenience of passengers, which are dealt with in the present section.

Motor omnibus. Services are operated by government or municipal authorities and private operators. Statistics are collected for government and municipal omnibus services located in all State capital cities; Canberra, Australian Capital Territory; Newcastle, New South Wales; Maryborough and Rockhampton, Queensland; Fremantle and the Eastern Goldfields area, Western Australia; Launceston and Burnie, Tasmania; Darwin, Northern Territory; and for country road services operated by the Western Australian Government Railways and the Tasmanian Transport Commission. In Sydney the Government tramway system has been replaced by omnibus services, and in Perth the Metropolitan (Perth) Passenger Transport Trust has replaced privately owned services in the metropolitan area. In Hobart the Government trolley-bus and omnibus services have replaced the Government tramway service.

Particulars of motor omnibus services under the control of private operators are recorded for the States of New South Wales, Victoria, Queensland, South Australia and Western Australia. In New South Wales particulars of private services are compiled for the Sydney metropolitan and Newcastle transport districts and the City of Greater Wollongong. In Victoria particulars since 1963-64 relate to operations within the Melbourne metropolitan area. Prior to this they referred to services operating within eight miles of the General Post Office, Melbourne. In South

Australia particulars relate to services licensed by the Municipal Tramways Trust and the Transport Control Board. In Queensland they relate to all cities with a population of 10,000 persons or more. In Western Australia particulars of all private services throughout the State are included.

Government and municipal services

Because of the development in recent years of the various forms of public road transport under the control of single authorities, and the gradual replacement of tramway services by motor omnibus services, it is no longer possible to obtain separate statistics for all phases of the activities of each form of transport, particularly financial operations. In this section, therefore, statistics of public tramway, trolley-bus and motor omnibus services are combined in single tables with separate details shown for each form of transport where possible. The following table gives a summary for 1964-65 of the operations of tramway, trolley-bus and omnibus systems controlled by government and municipal authorities.

TRAMWAY, TROLLEY-BUS AND OMNIBUS SERVICES: GOVERNMENT AND MUNICIPAL, STATES AND TERRITORIES, 1964-65

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Route-miles at 30 June—									
Tram(a) miles	..	156	59	7	..	..	..	..	222
Trolley-bus . . . . . "	..	..	20	..	17	28	..	..	65
Omnibus "	574	123	312	141	4,304	911	29	66	6,460
Vehicle miles—									
Tram '000	..	17,748	6,309	495	(b)	1,225	..	..	24,552
Trolley-bus . . . . . "	..	..	1,044	..	(b)	5,180	..	..	..
Omnibus "	44,784	7,267	6,718	10,971	18,639	..	483	1,890	98,201
Rolling stock at 30 June—									
Tram number	..	782	287	30	..	..	..	..	1,099
Trolley-bus . . . . . "	..	..	36	..	50	66	..	..	152
Omnibus "	1,746	300	319	353	617	238	18	89	3,680
Passenger-journeys—									
Tram '000	..	152,619	63,029	2,438	(b)	(b)	..	..	218,086
Trolley-bus . . . . . "	..	..	6,779	..	(b)	..	..	..	..
Omnibus "	261,609	29,812	33,484	53,996	50,902	23,934	915	5,073	466,524
Gross revenue(c)—									
Tram, trolley-bus and omnibus \$'000	24,749	17,980	7,751	5,899	5,877	2,246	130	478	65,110
Working expenses(d)—									
Tram, trolley-bus and omnibus \$'000	28,000	18,470	8,304	5,487	6,578	2,862	159	659	70,519
Net revenue—									
Tram, trolley-bus and omnibus \$'000	- 3,251	-490	-553	412	-701	-616	-29	-181	-5,409
Ratio of working expenses to gross revenue—									
Tram, trolley-bus and omnibus per cent	113.14	102.72	107.14	93.02	111.94	127.41	122.40	137.86	108.31
Employees at 30 June—									
Tram, trolley-bus and omnibus number	7,286	4,819	2,537	1,418	1,931	696	25	129	18,841
Accidents—									
Tram, trolley-bus and omnibus(e)—									
Persons killed number	5	15	16	..	5	1	2	..	44
Persons injured ..	1,366	681	54	179	266	60	..	..	2,606

(a) Gauge 4 feet 8½ inches throughout. (b) Included with omnibus services. (c) Excludes government grants. (d) Includes provision of reserves for depreciation, etc., where possible. (e) Excludes accidents to employees.

Minus sign (—) denotes deficit.

The following table gives a summary of the operations of tramway, trolley-bus and omnibus systems controlled by government and municipal authorities for the years 1960-61 to 1964-65.

**TRAMWAY, TROLLEY-BUS AND OMNIBUS SERVICES: GOVERNMENT AND
MUNICIPAL, AUSTRALIA, 1960-61 TO 1964-65**

	1960-61 (a)	1961-62	1962-63	1963-64	1964-65
Route-miles at 30 June—					
Tram miles	238	229	223	227	222
Trolley-bus "	92	88	88	65	65
Omnibus "	5,413	5,777	5,735	5,921	6,460
Vehicle miles—					
Tram '000	30,010	28,034	26,363	25,689	24,552
Trolley-bus "	4,558	93,647	94,883	96,272	98,201
Omnibus "	85,924				
Rolling stock at 30 June—					
Tram number	1,227	1,190	1,124	1,101	1,099
Trolley-bus "	246	240	208	152	152
Omnibus "	3,366	3,450	3,474	3,540	3,680
Passenger-journeys—					
Tram '000	265,473	248,396	237,929	231,348	218,086
Trolley-bus "	19,461				
Omnibus(b) "	440,822				
Gross revenue(c)—					
Tram, trolley-bus and omnibus \$'000	63,600	63,514	63,394	63,688	65,110
Working expenses(d)—					
Tram, trolley-bus and omnibus \$'000	68,764	68,412	67,344	67,890	70,519
Net revenue—					
Tram, trolley-bus and omnibus \$'000	-5,164	-4,898	-3,950	-4,202	-5,409
Ratio of working expenses to gross revenue—					
Tram, trolley-bus and omnibus per cent	108.12	107.71	106.23	106.61	108.31
Employees at 30 June—					
Tram, trolley-bus and omnibus number	21,455	20,607	19,986	19,346	18,841
Accidents—					
Tram, trolley-bus and omnibus(e)—					
Persons killed number	25	42	32	38	44
Persons injured "	2,756	3,076	2,915	2,839	2,606

(a) Includes particulars of New South Wales tramway services up to cessation of operation in February, 1961. (b) Includes particulars for Tasmanian trams (to October, 1960) and trolley-buses. (c) Includes government grants. (d) Includes provision of reserves for depreciation, etc., where possible. (e) Excludes accidents to employees.

Minus sign (-) denotes deficit.

Private omnibus services

The following table shows the operations of motor omnibus services under the control of private operators in New South Wales, Victoria, Queensland, South Australia and Western Australia during each of the years 1960-61 to 1964-65. Particulars are not available for Tasmania and the Northern Territory.

MOTOR OMNIBUS SERVICES: PRIVATE, STATES, 1960-61 TO 1964-65

Year	Number of omnibuses (a)	Omnibus-miles	Passenger-journeys	Value of plant and equipment (b)	Gross revenue	Persons employed (b)
		'000	'000	\$'000	\$'000	
New South Wales(c)—						
1960-61(d)	1,169	20,611	76,157	3,694	6,576	1,662
1961-62	1,233	26,336	83,523	3,926	8,388	1,593
1962-63	1,296	25,141	72,082	3,988	7,776	1,452
1963-64	1,351	29,516	79,122	4,850	9,392	1,657
1964-65	1,440	31,945	79,951	5,253	9,921	1,796
Victoria—Melbourne Metropolitan Area(e)—				(f)		(g)
1960-61(h)	551	15,702	70,273	1,510	4,934	732
1961-62(h)	539	15,805	69,150	1,388	5,226	721
1962-63(h)	553	16,405	70,197	1,400	5,368	709
1963-64	747	20,584	86,333	2,174	6,810	936
1964-65	763	21,280	83,274	2,296	7,362	911
Queensland(i)—						
1960-61	378	8,298	25,806	1,482	2,476	578
1961-62	394	8,714	26,301	1,612	2,562	582
1962-63	402	8,562	25,563	1,734	2,508	574
1963-64	416	8,754	26,334	1,892	2,640	562
1964-65	415	8,841	27,705	1,713	2,885	547
South Australia(j)—						
1960-61	281	5,963	11,171	n.a.	1,698	n.a.
1961-62	258	6,030	11,153		1,738	
1962-63	244	6,045	11,583		1,806	
1963-64	256	6,357	11,783		1,866	
1964-65	268	6,779	11,635		2,024	
Western Australia(k)—						
1960-61	142	4,049	10,394	706	1,172	273
1961-62(l)	58	3,098	7,268	284	766	82
1962-63	61	1,088	1,696	240	270	74
1963-64	62	978	1,425	244	230	67
1964-65	44	791	1,446	123	155	45

(a) At 30 June. (b) At end of period. (c) Metropolitan, Newcastle and Wollongong transport districts only. (d) Nine months ended March 1961; subsequent figures relate to the years ended 31 March. (e) Partly estimated. (f) Vehicles only. (g) Drivers only. (h) Figures relate only to services operating within eight miles of General Post Office, Melbourne. (i) All cities with a population of 10,000 persons or more. (j) Services licensed by the Municipal Tramways Trust and the Transport Control Board. (k) Includes services operated in metropolitan and rural areas. (l) Decrease due to Metropolitan (Perth) Passenger Transport Trust's acquisition of services previously privately owned.

FERRY (PASSENGER) SERVICES

Ferry passenger services are operated in the following States—New South Wales, at Sydney and Newcastle; Western Australia, on the Swan River at Perth; Tasmania, on the Mersey River at Devonport. Control is exercised by both governmental authorities and private operators. In Victoria and Queensland the services operated are not extensive. There are no ferry passenger services in South Australia.

Summary of operations

The operations of ferry passenger services in New South Wales, Western Australia and Tasmania during the years 1960-61 to 1964-65 are summarized in the following table. Particulars of vehicular ferries are not included.

FERRY (PASSENGER) SERVICES: STATES, 1960-61 TO 1964-65

Year	Number of vessels	Passenger accommodation	Passenger-journeys	Gross revenue	Persons employed
			'000	\$'000	
New South Wales—Sydney and Newcastle—					
1960-61	40	19,211	15,093	1,744	316
1961-62	39	17,641	14,452	1,660	295
1962-63	38	17,653	14,456	1,672	300
1963-64	38	17,463	14,777	1,763	289
1964-65	40	17,506	15,062	1,911	302
Western Australia—Perth—					
1960-61	4	785	180	18	7
1961-62	4	800	168	20	8
1962-63	4	800	192	22	8
1963-64	4	800	185	24	8
1964-65	5	865	201	31	8
Tasmania—Hobart and Devonport—					
1960-61	4	1,482	436	21	12
1961-62	4	1,482	406	19	12
1962-63	4	1,482	380	21	12
1963-64(a)	1	40	177	8	3
1964-65(a)	1	40	180	8	3

(a) Devonport only.

MOTOR VEHICLES

The arrangements for the registration of motor vehicles and the licensing of drivers and riders are not uniform throughout Australia, since they are the function of a separate authority, or authorities, in each State and Territory. Particulars of registration, licences, fees payable, etc., in each State and Territory at 30 June 1960 were given in Year Book No. 47, pages 553-6, and at 30 June 1963 in *Transport and Communication*, Bulletin No. 54, 1962-63.

Motor vehicles on register; licences

Tables in this section include vehicles owned by private individuals, local government authorities, State Governments and the Commonwealth Government (excluding those belonging to the defence services).

Census of Motor Vehicles, 1962

A census of motor vehicles on register at 31 December 1962 was conducted by the Commonwealth Statistician in co-operation with the Deputy Commonwealth Statisticians and the motor vehicle registration authorities. The census covered items shown on the motor vehicle registration certificate such as make of vehicle, year of model, type of vehicle, horsepower, motive power, location (i.e. address on registration certificate), ownership (private, government, etc.), and for specific types of vehicles such items as unladen weight, carrying capacity, passenger capacity, and in some States gross vehicle weight. Details were published in printed bulletins for each State and Territory and for Australia, and in issue No. 54, 1962-63 of the annual bulletin *Transport and Communication*. Year Book No. 50, 1964, contains summarized particulars of the census (pages 591-4). Reference is made to the publication of results of previous enumerations of this nature in Year Book No. 51 (page 571).

The following table contains a summary for each State and Territory of the number of motor vehicles of each type on the register at 31 December 1962. The total number of each type recorded for Australia at the previous motor vehicle census (31 December 1955) is included for purposes of comparison.

**CENSUS OF MOTOR VEHICLES, 31 DECEMBER 1962: TYPES OF VEHICLE
STATES AND TERRITORIES**

State or Territory	Motor cars (a)	Station wagons	Utilities	Panel vans	Trucks	Other truck-type	Omni-buses	Motor cycles	Total motor vehicles (b)
New South Wales .	742,947	85,746	137,138	49,479	84,670	2,822	5,004	20,398	1,128,204
Victoria	611,497	69,528	94,470	31,328	76,591	2,890	3,409	15,802	905,515
Queensland	255,513	31,086	90,434	13,184	39,932	448	1,815	13,963	446,375
South Australia	220,010	18,895	38,539	9,678	31,684	982	1,580	16,717	338,085
Western Australia	149,799	15,838	37,784	8,585	27,256	541	1,365	12,257	253,425
Tasmania	69,020	6,677	11,183	6,364	8,487	301	940	2,101	105,073
Northern Territory	4,321	1,258	2,806	471	1,326	73	91	325	10,671
Australian Capital Territory	15,591	2,408	1,802	808	935	34	115	296	21,989
Australia, 31 Dec. 1962	No.	2,068,698	231,436	414,156	119,897	270,881	8,091	14,319	3,209,337
Per cent	64.5	7.2	12.9	3.7	8.4	0.3	0.4	2.6	100.0
Australia, 31 Dec. 1955	No.	1,356,682	15,948	c361,970	c53,808	250,630	5,884	10,142	2,182,193
Per cent	62.2	0.7	16.6	2.5	11.5	0.3	0.4	5.8	100.0

(a) Includes ambulances and hearses. (b) Excludes tractors, trailers, plant and equipment, etc.
(c) Queensland panel vans are included with utilities.

Motor vehicles on register, etc.

The following table shows particulars of the number of motor vehicles on register and the number per 1,000 of population at 31 December 1964.

**MOTOR VEHICLES(a) ON REGISTER: STATES AND TERRITORIES
31 DECEMBER 1964**

State or Territory	Motor cars, station wagons, ambulances, hearses	Utilities, panel vans, trucks(b), omnibuses	Motor cycles	Total(c)	Per 1,000 of population
New South Wales	969,093	289,706	18,063	1,276,862	307
Victoria	789,327	217,163	13,051	1,019,541	322
Queensland	355,244	152,702	12,423	520,369	326
South Australia	276,902	85,084	14,107	376,093	360
Western Australia	195,818	78,470	9,602	283,890	355
Tasmania	88,084	29,005	1,586	118,675	316
Northern Territory	7,706	5,733	305	13,744	444
Australian Capital Territory	25,019	4,571	313	29,903	353
Australia	2,707,193	862,434	69,450	3,639,077	323

(a) On a basis comparable with the Census of Motor Vehicles, 1962. All figures are subject to revision.
(b) Includes other truck-type vehicles. (c) Excludes tractors, trailers, plant and equipment, etc.

The table following shows a summary for Australia of the number of motor vehicles on register and the number per 1,000 of population at 31 December each year 1960 to 1965.

MOTOR VEHICLES ON REGISTER: AUSTRALIA, 1960 TO 1965

31 December—	Motor cars, station wagons, ambulances, hearses	Utilities, panel vans, trucks(a), omnibuses	Motor cycles	Total(b)	Per 1,000 of population
1960(c) . . .	2,027,298	798,828	97,696	2,923,822	281
1961(c) . . .	2,126,339	803,551	88,855	3,018,745	285
1962(d) . . .	2,300,134	827,344	81,859	3,209,337	297
1963(e) . . .	2,498,925	844,481	74,719	3,418,125	310
1964(e) . . .	2,707,193	862,434	69,450	3,639,077	323
1965(e) . . .	2,894,203	872,394	67,435	3,834,032	334

(a) Includes other truck-type vehicles. (b) Excludes tractors, trailers, plant and equipment, etc.
(c) Estimates for inter-censal years on a basis comparable with the Censuses of 1955 and 1962. (d) Census
figures. (e) Subject to revision.

The table following shows the number of motor vehicles on register per 1,000 of population in each State and Territory at 31 December for each of the years 1961 to 1965.

MOTOR VEHICLES(a) ON REGISTER PER 1,000 OF POPULATION
STATES AND TERRITORIES, 1961 TO 1965

31 December—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1961(b) . . .	267	290	278	332	311	275	386	309	285
1962(c) . . .	281	300	288	338	331	284	406	319	298
1963(d) . . .	293	312	306	349	344	299	428	341	311
1964(d) . . .	307	322	326	360	355	316	444	353	323
1965(d) . . .	317	330	343	367	369	331	432	363	334

(a) Excludes tractors, trailers, plant and equipment, etc. (b) Estimates for inter-censal years on a basis
comparable with the Censuses of 1955 and 1962. (c) Census figures. (d) Subject to revision.

Drivers' and riders' licences

At 30 June 1965 the numbers of licences in force to drive or ride motor vehicles were: New South Wales, 1,608,213; Victoria, 1,215,435; South Australia, 438,666; Western Australia, 329,157; Tasmania, 136,744; Australian Capital Territory, 46,612. Particulars are not available for Queensland and the Northern Territory.

Registrations of new motor vehicles

The following table shows the number of new motor vehicles registered in each State and Territory during the year ended 31 December 1965.

REGISTRATIONS OF NEW MOTOR VEHICLES: STATES AND TERRITORIES, 1965

State or Territory	Motor cars and station wagons	Utilities, panel vans, trucks(a) and omnibuses	Motor cycles	Total
New South Wales . . .	121,423	25,749	3,251	150,423
Victoria	93,115	17,865	1,058	112,038
Queensland	44,855	12,502	1,758	59,115
South Australia	34,168	6,966	1,090	42,224
Western Australia . . .	22,655	8,081	594	31,330
Tasmania	10,443	2,564	122	13,129
Northern Territory . . .	1,153	744	72	1,969
Australian Capital Territory	3,939	719	117	4,775
Australia	331,751	75,190	8,062	415,003

(a) Includes other truck-type vehicles, ambulances and hearses.

Particulars of the registrations of new motor vehicles during each of the years ended 31 December 1961 to 1965 are shown in the following table.

REGISTRATIONS OF NEW MOTOR VEHICLES AUSTRALIA, 1961 TO 1965

Year	Motor cars and station wagons	Utilities, panel vans, trucks(a) and omnibuses	Motor cycles	Total
1961	188,132	49,608	6,103	243,843
1962	266,789	56,457	5,414	328,660
1963	307,380	66,783	5,272	379,435
1964	333,063	75,492	6,482	415,037
1965	331,751	75,190	8,062	415,003

(a) Includes other truck-type vehicles, ambulances and hearses.

ROADS AND BRIDGES

Information on the length of roads in Australia, the class of roads and their composition, together with particulars of the financial operations of the roads authorities in the several States, is included in the chapter Local Government of this Year Book.

ROAD TRAFFIC ACCIDENTS

Accidents reported

Accidents involving casualties, persons killed, persons injured

The following table gives a summary of road traffic accidents involving casualties in each State and Territory for the year ended December 1964.

**ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(a): NUMBER OF
ACCIDENTS, PERSONS KILLED AND PERSONS INJURED
STATES AND TERRITORIES, 1964**

State or Territory	Accidents involving casualties	Persons killed			Persons injured		
		Number	Per 100,000 of mean population	Per 10,000 motor vehicles registered	Number	Per 100,000 of mean population	Per 10,000 motor vehicles registered
New South Wales	19,399	1,010	25	8	26,631	646	215
Victoria	13,991	904	29	9	19,836	634	200
Queensland	7,220	461	29	9	10,383	655	207
South Australia(b)	6,998	238	23	7	9,222	894	252
Western Australia	4,062	222	28	8	5,450	690	197
Tasmania	1,184	89	24	8	1,709	465	148
Northern Territory	224	25	80	19	297	946	228
Australian Capital Territory	476	17	21	6	730	904	259
Total	53,554	2,966	27	8	74,258	667	210

(a) Accidents (reported to the police) which occurred in public thoroughfares and which resulted in the death of any person within a period of thirty days after the accident, or injury to an extent requiring surgical or medical treatment. (b) Includes all accidents resulting in bodily injury to any person whether or not requiring medical or surgical treatment.

The following table shows the number of road traffic accidents involving casualties and persons killed or injured in road traffic accidents in each State and the Australian Capital Territory during each of the years ended December 1960 to 1964 and for the Northern Territory for the years ended December 1963 and 1964.

**ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(a): NUMBER OF
ACCIDENTS, PERSONS KILLED AND PERSONS INJURED
STATES AND TERRITORIES, 1960 TO 1964**

Year	N.S.W.	Vic.	Qld	S.A. (b)	W.A.	Tas.	N.T.	A.C.T.	Total	
									Number	Per 10,000 motor vehicles registered
Accidents involving casualties—										
1960	17,011	12,087	5,764	5,988	3,713	778	n.a.	339	45,680	162
1961	16,380	11,719	5,371	5,865	3,528	855	n.a.	296	44,014	148
1962	16,076	12,026	6,310	6,491	3,685	833	n.a.	348	45,769	147
1963	18,101	12,590	6,724	6,299	4,057	1,051	218	425	49,465	149
1964	19,399	13,991	7,220	6,998	4,062	1,184	224	476	53,554	152
Persons killed—										
1960	978	760	346	234	199	78	n.a.	10	2,605	9
1961	918	794	337	178	172	73	n.a.	7	2,479	8
1962	876	808	403	194	177	61	n.a.	8	2,527	8
1963	900	780	398	223	198	75	16	8	2,598	8
1964	1,010	904	461	238	222	89	25	17	2,966	8
Persons injured—										
1960	22,655	16,669	8,175	7,704	4,862	1,079	n.a.	490	61,634	218
1961	21,839	16,115	7,467	7,297	4,779	1,173	n.a.	451	59,121	199
1962	21,468	16,781	8,703	8,321	5,077	1,158	n.a.	498	62,006	199
1963	24,652	17,577	9,445	8,271	5,399	1,595	313	628	67,880	205
1964	26,631	19,836	10,383	9,222	5,450	1,709	297	730	74,258	210

(a) See footnote (a) to previous table.

(b) See footnote (b) to previous table.

Types of road user killed or injured

The following table shows the number of persons killed and the number injured in each State and Territory, classified according to types of road user for the year ended December 1964. Responsibility for cause of accident is not indicated by this classification.

ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(a): PERSONS KILLED OR INJURED, BY TYPE OF ROAD USER INVOLVED, STATES AND TERRITORIES, 1964

Type of road user	N.S.W.	Vic.	Qld	S.A. (b)	W.A.	Tas.	N.T.	A.C.T.	Total
PERSONS KILLED									
Drivers of motor vehicles . . .	330	335	164	75	91	34	8	6	1,043
Motor cyclists . . .	26	11	25	13	9	3	2	..	89
Pedal cyclists . . .	38	54	12	17	8	3	..	..	132
Passengers (all types)(c) . . .	287	233	145	56	71	14	10	9	825
Pedestrians . . .	328	269	115	76	43	35	5	2	873
Other classes(d) . . .	1	2	..	1	..	..	..	..	4
Total . . .	1,010	904	461	238	222	89	25	17	2,966

PERSONS INJURED									
Drivers of motor vehicles . . .	9,860	7,287	3,842	3,550	1,968	667	140	293	27,607
Motor cyclists . . .	861	422	667	760	415	47	11	20	3,203
Pedal cyclists . . .	955	1,113	549	646	372	58	5	52	3,750
Passengers (all types)(c) . . .	10,907	8,184	4,385	3,431	2,010	722	129	302	30,070
Pedestrians . . .	4,012	2,745	924	824	675	214	12	63	9,469
Other classes(d) . . .	36	85	16	11	10	1	..	..	159
Total . . .	26,631	19,836	10,383	9,222	5,450	1,709	297	730	74,258

(a) See footnote (a) to table on page 477. (b) See footnote (b) to table on page 477. (c) Includes pillion riders. (d) Includes tram drivers, riders of horses and drivers of animal-drawn vehicles.

Age groups of persons killed or injured

The following table shows the age groups of persons killed or injured in traffic accidents in each State and Territory for the year ended December 1964.

ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(a): PERSONS KILLED OR INJURED, BY AGE GROUP, STATES AND TERRITORIES, 1964

Age group (years)	N.S.W.	Vic.	Qld	S.A. (b)	W.A.	Tas.	N.T.	A.C.T.	Aust.
PERSONS KILLED									
Under 5 . . .	33	30	10	12	6	5	1	1	98
5 and under 7 . . .	20	14	9	5	7	2	2	..	59
7 " " 17 . . .	82	70	39	25	21	4	1	1	243
17 " " 21 . . .	151	108	79	31	34	20	3	..	426
21 " " 30 . . .	152	141	77	33	34	14	5	3	459
30 " " 40 . . .	110	118	47	26	21	10	4	6	342
40 " " 50 . . .	100	105	66	29	34	6	7	2	349
50 " " 60 . . .	130	118	52	22	30	7	1	2	362
60 and over . . .	229	185	82	44	34	21	..	2	597
Not stated . . .	3	15	..	11	1	..	1	..	31
Total . . .	1,010	904	461	238	222	89	25	17	2,966

PERSONS INJURED									
Under 5 . . .	917	684	321	278	170	55	11	39	2,475
5 and under 7 . . .	538	442	172	161	141	37	2	19	1,512
7 " " 17 . . .	3,119	2,463	1,297	1,244	794	218	15	105	9,255
17 " " 21 . . .	5,441	3,773	2,340	1,816	1,146	353	33	161	15,063
21 " " 30 . . .	5,677	4,215	2,195	1,647	1,005	339	103	164	15,345
30 " " 40 . . .	3,392	2,653	1,220	1,073	542	167	67	80	9,194
40 " " 50 . . .	2,915	2,140	1,023	859	550	181	38	71	7,777
50 " " 60 . . .	2,270	1,612	803	647	417	98	17	41	5,905
60 and over . . .	1,988	1,524	772	532	350	96	6	37	5,305
Not stated . . .	374	330	240	965	335	165	5	13	2,427
Total . . .	26,631	19,836	10,383	9,222	5,450	1,709	297	730	74,258

(a) See footnote (a) to table on page 477. (b) See footnote (b) to table on page 477.

Types of accident

The following table shows the number of accidents involving casualties and persons killed or injured in each State and Territory, classified according to types of accident, for the year ended December 1964.

ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(a): NUMBER OF ACCIDENTS AND PERSONS KILLED AND PERSONS INJURED, BY TYPE OF ACCIDENT, STATES AND TERRITORIES, 1964

Type of accident	N.S.W.	Vic.	Qld	S.A. (b)	W.A.	Tas.	N.T.	A.C.T.	Aust.
NUMBER OF ACCIDENTS									
Collisions between vehicles	9,630	7,692	3,256	4,257	2,048	579	63	309	27,834
Vehicle overturning or leaving road	3,406	2,165	2,560	960	1,138	303	119	52	10,703
Vehicle colliding with pedestrian	4,036	2,837	992	807	672	233	17	59	9,653
Vehicle colliding with fixed object(c)	2,025	1,022	224	903	129	59	6	49	4,417
Passenger accidents	177	127	83	36	42	4	8	3	480
Vehicle colliding with animal	125	52	71	28	24	6	9	1	316
Other . . . . .	..	96	34	7	9	..	2	3	151
Total	19,399	13,991	7,220	6,998	4,062	1,184	224	476	53,554

PERSONS KILLED

Collisions between vehicles	373	384	171	90	77	25	8	10	1,138
Vehicle overturning or leaving road	174	176	152	46	98	30	9	1	686
Vehicle colliding with pedestrian	321	266	116	74	42	33	5	2	859
Vehicle colliding with fixed object(c)	130	66	7	26	4	1	..	3	237
Passenger accidents	9	5	8	..	1	..	3	1	27
Vehicle colliding with animal	3	2	3	1	..	..	..	..	9
Other . . . . .	..	5	4	1	..	..	..	..	10
Total	1,010	904	461	238	222	89	25	17	2,966

PERSONS INJURED

Collisions between vehicles	14,648	12,103	5,109	5,806	3,018	915	99	525	42,223
Vehicle overturning or leaving road	4,846	3,321	3,784	1,338	1,542	472	157	70	15,530
Vehicle colliding with pedestrian	3,957	2,729	965	798	657	220	12	60	9,398
Vehicle colliding with fixed object(c)	2,843	1,396	305	1,202	156	89	10	69	6,070
Passenger accidents	185	125	95	38	41	4	5	2	495
Vehicle colliding with animal	152	66	86	33	26	9	12	1	385
Other . . . . .	..	96	39	7	10	..	2	3	157
Total	26,631	19,836	10,383	9,222	5,450	1,709	297	730	74,258

(a) See footnote (a) to table on page 477. (b) See footnote (b) to table on page 477. (c) Includes parked vehicles.

Australian Road Safety Council

Origin, objectives and organization

The Australian Road Safety Council was formed in 1947 by the Australian Transport Advisory Council, which comprises Commonwealth and State transport ministers and Commonwealth ministers with associated interests, to co-ordinate road safety activities in Australia. It was re-constituted in February 1961 by the Australian Transport Advisory Council, in order to provide a smaller, more effective, organization.

The Council comprises twenty-two members, representing the Commonwealth and State Governments and the major categories of organized road users and includes six independent specialists in the fields of medicine, enforcement, road research, statistics, road engineering, and traffic engineering who were added to the Council in 1965. It meets approximately twice each year and has established a number of temporary sub-committees to investigate and report upon particular aspects of its activities.

The Department of Shipping and Transport provides the secretariat for the Council. Each section represented on the Australian Road Safety Council—Commonwealth, State and community/commercial—exercises full control over its own activities.

Mode of operation

The media used by the Australian Road Safety Council include metropolitan daily press and metropolitan radio and television, platform and pulpit, plus a wide variety of posters, pamphlets, booklets, publications and films. The official publication of the Council is the *Australian Road Safety Council Report* which is published monthly. Through its secretariat in the Department of Shipping and Transport, the Council works in close collaboration with other committees established by the Australian Transport Advisory Council. These include the Australian Road Traffic Code Committee, which prepares model regulations with the object of attaining national uniformity of traffic laws; and the Australian Motor Vehicle Standards Committee, which devises national standards for the construction, equipment, and operational efficiency of all road vehicles. At the present time a special committee of Commonwealth and State educationists, called together by the Australian Road Safety Council, is investigating ways and means of broadening and strengthening the impact of road safety education throughout the school system. Another committee is looking into the question of more comprehensive and purposeful road accident statistics.

Jointly with the Australian Motor Vehicle Standards Committee the Council is investigating the desirability of compulsory vehicle inspections, and works in co-operation with the National Health and Medical Research Council and the Australian Traffic Code Committee in examining existing arrangements on the policy and procedures best suited to Australian conditions for the promotion of driver improvement through health standards, licensing and enforcement. The Council recently brought together representatives of commerce and industry and seat-belt manufacturers to promote a national seat-belt campaign. The move resulted from both Australian and overseas studies which indicated that the risk of death or serious injury to drivers and passengers could be reduced substantially by the use of seat belts.

CIVIL AVIATION

Department of Civil Aviation

Control of civil aviation in Australia is exercised by the Department of Civil Aviation, which was established in 1939 to take over from the Civil Aviation Board the regulation of civil aviation in Australia. The Department's jurisdiction covers not only Australia but also Papua, New Guinea and areas of the Indian and Pacific Oceans. Year Book Nos. 16, 19 and 38 trace the establishment of civil aviation control in Australia and the appropriate Acts of Parliament and Regulations under which this control is exercised. The present functions of the Department are shown in Year Book No. 51, pages 578–9, and further details about its operations are given in the annual reports to the Commonwealth Parliament by the Minister for Civil Aviation.

International activity

International organizations. A full report of the formation of the International Civil Aviation Organization, the Commonwealth Air Transport Council and the South Pacific Air Transport Council appeared in Year Book No. 37, and particulars of subsequent activity in the international field were included in No. 38. The International Civil Aviation Organization had a membership of 110 nations in December 1965. Australia has continued its representation on the Council, a position which it held since I.C.A.O. was established in 1947. Further details will be found in Year Book No. 40 and earlier issues.

International agreements. Since 1946 Australia has signed air services agreements with twenty countries. Of these, eighteen were in force at December 1965. The countries concerned were Canada, Ceylon, France, Federal Republic of Germany, India, Ireland, Italy, Japan, Lebanon, Malaysia, Netherlands, New Zealand, Pakistan, South Africa, Thailand, United Arab Republic, United Kingdom and United States of America. The agreement with France was signed and entered into force on 13 April 1965. Agreements with Iran and Turkey had not come into operation by December 1965. Under these agreements traffic rights are granted to Australia's international airline, Qantas Empire Airways Ltd., in return for reciprocal traffic rights for the designated international airlines of the countries concerned to operate air services into Australia. Australia has also concluded arrangements with the following six countries, Austria, Greece, Indonesia, Mexico, Philippines and Singapore, under which Qantas is currently exercising traffic rights.

International air services. In December 1965 eleven overseas international airlines were operating regularly scheduled services to Australia. These included: Air-India (India), Air New Zealand, formerly Tasman Empire Airways Ltd. (New Zealand), Alitalia (Italy), British Overseas Airways Corporation (United Kingdom), Canadian Pacific Air Lines (Canada), Deutsche Lufthansa (Federal Republic of Germany), Koninklijke Luchtvaart Maatschappij (Netherlands), Pan-American World Airways (United States of America), Philippine Air Lines (Philippines),

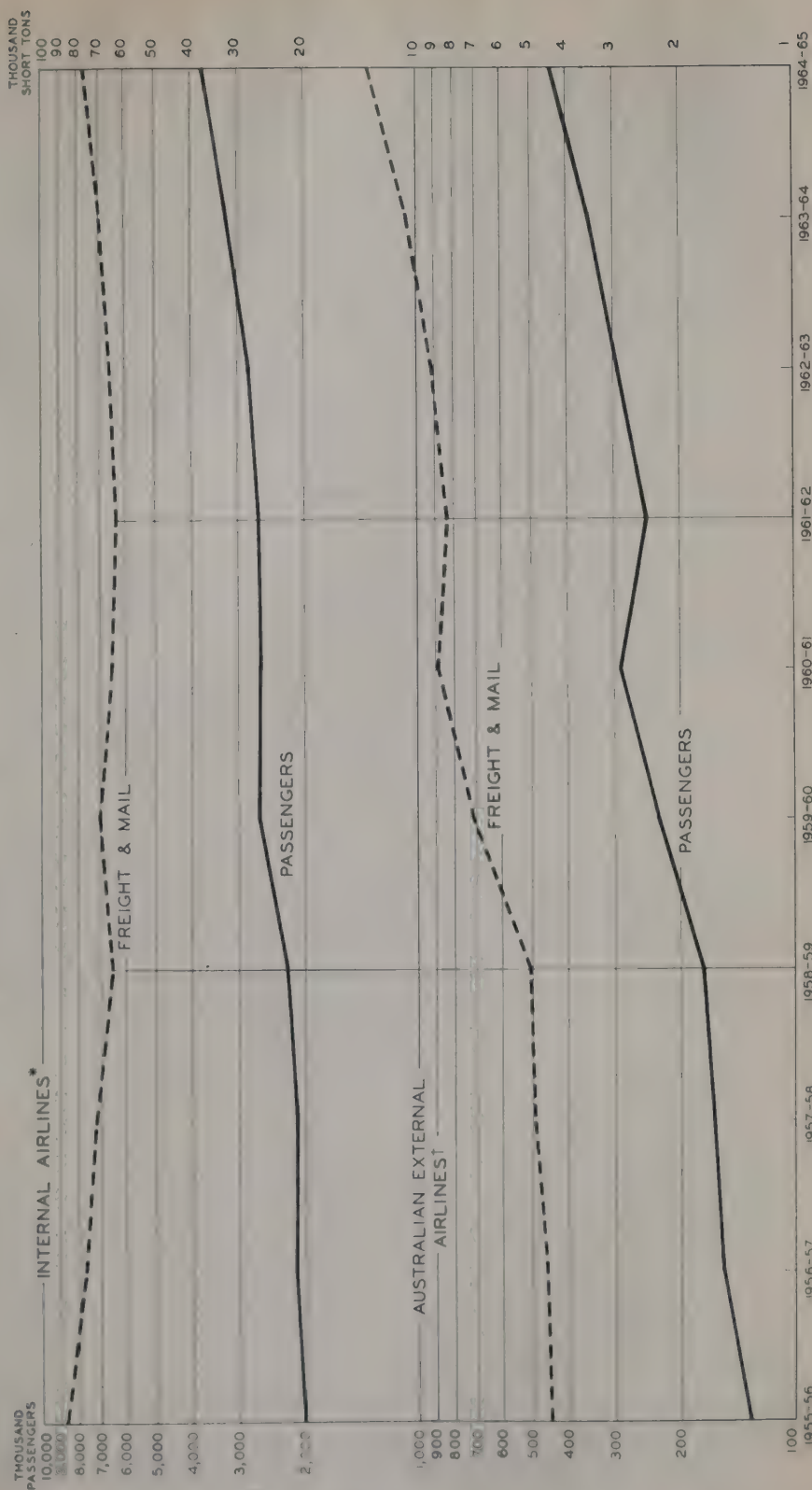
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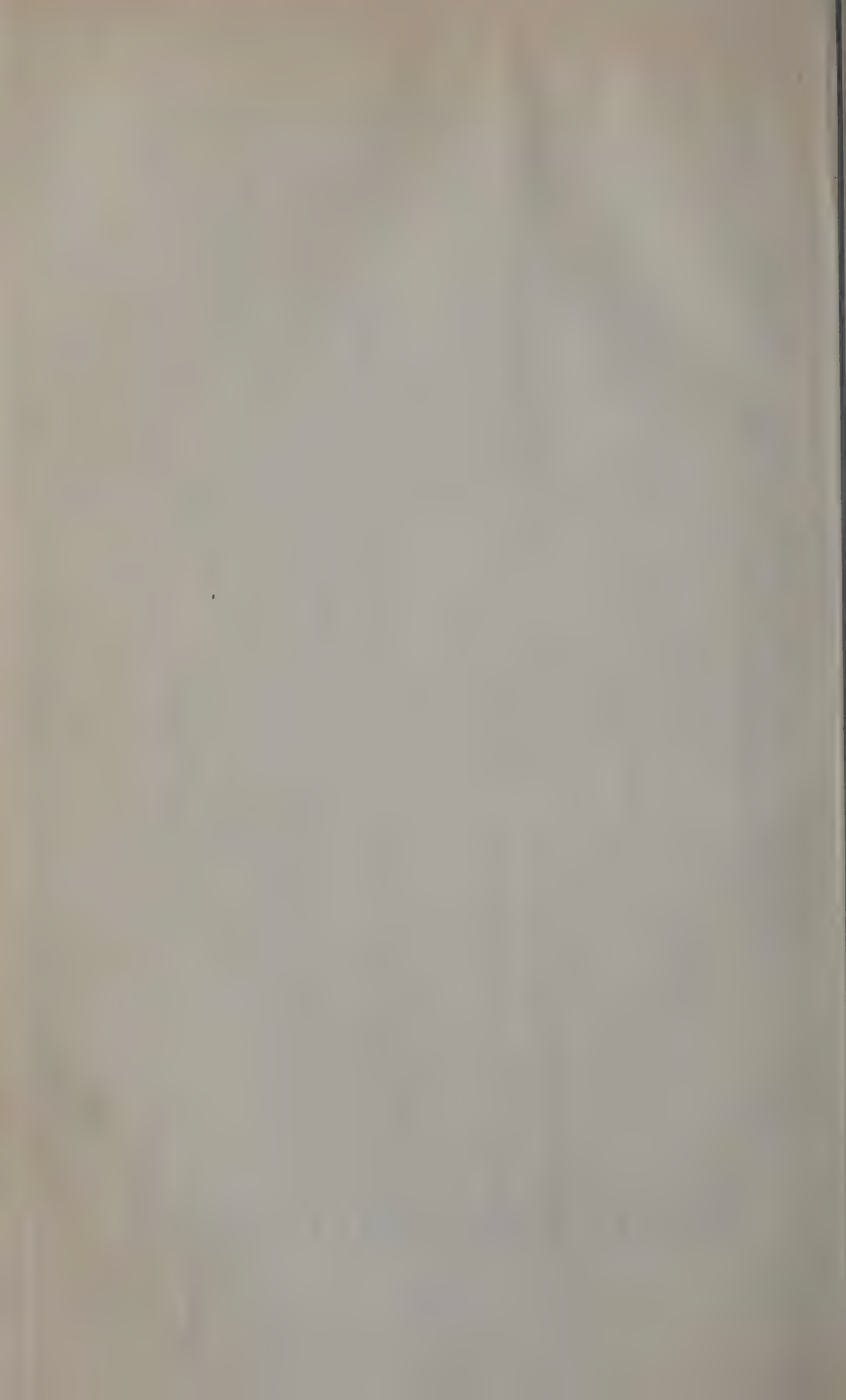




CIVIL AVIATION: AUSTRALIA, 1955-56 TO 1964-65 PAYING PASSENGERS AND FREIGHT CARRIED



* INCLUDES ONLY SERVICES OPERATING WITHIN THE AUSTRALIAN MAINLAND AND TASMANIA
 † AIRLINES WHOLLY OR PARTLY OWNED BY AUSTRALIAN INTERESTS
 NOTE - VERTICAL SCALE IS LOGARITHMIC, AND THE CURVES RISE AND FALL ACCORDING TO RATE OF INCREASE OR DECREASE. ACTUAL NUMBERS ARE INDICATED BY THE SCALES.



South African Airways (South Africa), and Union de Transports Aeriens (France). In addition, the Indonesian airline P.N. Merpati Nusantara operated services on demand between Sukarnapura in West Irian and Lae in New Guinea, and Trans-Australia Airlines operated services between Darwin and Portuguese Timor under charter to Transportes Aereos de Timor. By December 1965 Qantas, Australia's international airline, was operating thirteen Boeing 707-138B jet aircraft, four larger Boeing 707-338C jet aircraft, and three Lockheed Electra aircraft, over a world-wide network of 81,994 unduplicated route-miles. Firm orders had been placed by Qantas for a further five Boeing 707-338C aircraft for delivery in 1966-67, and tentative orders had been lodged for two more aircraft of this type to be delivered late in 1967. All the shares in Qantas Empire Airways are owned by the Commonwealth Government.

International operations. The table following shows particulars of international airline traffic during 1964-65 moving into and out of an area which embraces the Commonwealth of Australia, Papua-New Guinea and Norfolk Island. These figures do not include traffic between Australia and Papua-New Guinea and Norfolk Island.

**CIVIL AVIATION: INTERNATIONAL AIRLINE TRAFFIC
TO AND FROM AUSTRALIA(a), 1964-65**

Type of traffic	Aircraft move- ments	Passengers	Freight	Mail
Traffic to Australia—			short tons	short tons
Qantas Empire Airways	2,055	123,635	3,931	1,214
Other airlines	2,529	127,636	2,531	830
<i>All airlines</i>	<i>4,584</i>	<i>251,271</i>	<i>6,462</i>	<i>2,044</i>
Traffic from Australia—				
Qantas Empire Airways	2,103	110,492	2,478	919
Other airlines	2,523	113,745	1,921	485
<i>All airlines</i>	<i>4,626</i>	<i>224,237</i>	<i>4,399</i>	<i>1,404</i>

(a) Australian mainland and adjacent Territories (Papua-New Guinea and Norfolk Island).

Particulars of the operations of all Australian-owned airlines to places outside the Commonwealth of Australia are set out in the following table. Services to the external Territories of Papua-New Guinea and Norfolk Island are included, but services wholly within Papua-New Guinea are excluded. Details of the operations of Tasman Empire Airways Limited are included for 1960-61, but excluded after that year following the Commonwealth Government's sale of its half interest in this airline to the New Zealand Government.

**CIVIL AVIATION: OVERSEA OPERATIONS OF AUSTRALIAN-OWNED AIRLINES(a)
1960-61 TO 1964-65
REVENUE OPERATIONS**

	1960-61	1961-62	1962-63	1963-64	1964-65
Hours flown number	57,385	51,066	48,669	53,792	68,028
Miles flown '000	20,068	19,240	20,343	22,357	28,126
Passengers—					
Embarkations number	291,258	247,517	294,908	352,442	443,665
Passenger-miles '000	847,713	836,570	1,014,867	1,185,981	1,527,039
Freight—					
Tons uplifted short tons	6,575	6,432	6,756	8,071	10,293
Ton-miles(b) '000	30,134	30,429	33,135	38,633	51,826
Mail—					
Tons uplifted short tons	2,335	2,015	2,468	2,654	3,124
Ton-miles(b) '000	11,269	11,622	15,191	16,057	19,891

(a) Includes Tasman Empire Airways Ltd. for 1960-61 only. Includes considerable traffic which neither originates in nor enters Australia. Includes operations of Australian internal airlines to and from Papua-New Guinea but excludes operations of all services wholly within Papua-New Guinea. (b) In terms of short tons.

Regular air services within Australia

Interstate services. Scheduled services with passenger and all-freight aircraft are provided by two airlines only, namely, the private enterprise airline Ansett-A.N.A. (a subsidiary of Ansett Transport Industries) and the Commonwealth-owned instrumentality, Trans-Australia Airlines. All principal routes are competitive, with both airlines providing equal capacities in accord with legislation passed by the Commonwealth Parliament. The two principal Acts which establish the legislative basis of this controlled competition are the *Airlines Agreement Act 1952-1961* and the *Airlines Equipment Act 1958*. The Airlines Equipment Act established the machinery for the achievement and maintenance of comparable, but not necessarily identical, aircraft fleets between T.A.A. and Ansett-A.N.A., and is designed to prevent the provision of excess aircraft capacity. The Airlines Agreement Act established the basis of control of the two-airline competitive system and extended this machinery to 1977.

In addition to purely interstate services, both Ansett-A.N.A. and Trans-Australia Airlines operate routes to New Guinea and non-competitive intrastate routes in Australia. The Ansett-A.N.A. non-competitive routes radiate mainly from Melbourne, while those of Trans-Australia Airlines are located mainly within Queensland and Tasmania. In addition, Trans-Australia Airlines operate services within Papua-New Guinea in competition with another Ansett subsidiary, Ansett-M.A.L., and Papuan Airlines.

At 30 June 1965 the Ansett-A.N.A. fleet included two Boeing 727's, three Electras, eleven Viscounts, three DC6B's, three Friendships, a number of DC4's and DC3's, ten helicopters, and smaller aircraft. At the same date Trans-Australia Airlines operated a fleet of two Boeing 727's, three Electras, twelve Viscounts, three DC6B's, nine Friendships, a number of DC4's and DC3's, three helicopters, and smaller aircraft.

Intrastate services. In addition to the intrastate services operated by Ansett-A.N.A. and Trans-Australia Airlines there are a number of smaller regional airlines operating from Sydney (Airlines of New South Wales and East-West Airlines), Brisbane (Queensland Airlines), Adelaide (Airlines of South Australia), Perth (MacRobertson Miller Airlines), and Alice Springs (Connellan Airways). With the exception of Connellan Airways, which provides regular service to outback homesteads and communities, all the remainder are concerned primarily with traffic moving to and from the respective capital city. With the exception of the independently owned East-West Airlines and Connellan Airways, all regional airlines are subsidiaries of Ansett Transport Industries. The largest aircraft used by these regional airlines are DC4's, Metropolitans, and Friendships supported by DC3's. Connellan Airways uses smaller aircraft types.

Internal operations. Particulars of the operations of all regular air services within Australia, both interstate and intrastate, during each of the years 1960-61 to 1964-65 are set out in the next table.

**CIVIL AVIATION: OPERATIONS OF REGULAR INTERNAL SERVICES
AUSTRALIA(a), 1960-61 TO 1964-65**

REVENUE OPERATIONS

		1960-61	1961-62	1962-63	1963-64	1964-65
Hours flown . . . number		219,918	207,210	217,897	244,517	256,231
Miles flown . . . '000		42,301	41,176	43,700	48,971	52,323
Passengers—						
Embarkations . . . number		2,639,080	2,666,160	2,832,934	3,256,937	3,768,244
Passenger-miles . . . '000		1,109,552	1,119,430	1,221,178	1,408,317	1,639,087
Freight—						
Tons uplifted . . . short tons		62,971	57,207	59,373	63,161	69,959
Ton-miles(b) . . . '000		28,220	26,076	28,270	30,491	33,891
Mail—						
Tons uplifted . . . short tons		5,956	6,311	6,467	7,082	7,736
Ton-miles(b) . . . '000		3,064	3,198	3,324	3,741	4,074

(a) Excludes operations between Australia and the External Territories of Papua-New Guinea and Norfolk Island, and operations within Papua-New Guinea. (b) In terms of short tons.

General aviation

General aviation activity, which covers all non-airline operations such as charter, aerial work and private flying, has grown rapidly throughout Australia in the post-war period so that now it is an important sector of the Australian aviation industry. In 1964, hours flown totalled 613,925 compared with 336,597 hours flown by aircraft belonging to the Australian airline industry. At 30 June 1965, aircraft employed in general aviation numbered 1,996.

Training of air pilots

Since 1926 the Commonwealth has subsidized flying training in Australia largely through the Aero Club movement. In 1961 the Government altered the basis of financial assistance to flying training organizations. The new system provides for the payment of \$1,274,000 in subsidies to Australian flying training organizations, including the aero clubs, flying schools and the Gliding Federation of Australia, spread over a four-year period from 1961 to 1965. A feature of the new subsidy arrangements was the establishment of the Australian Flying Scholarship scheme which is designed to train career pilots for the Australian commercial aviation industry. The scholarships provide financial assistance in much the same way as Commonwealth scholarships provide for people undertaking other professions. In the first three years of the scheme 566 scholarships were granted—406 for training to commercial licence standard, 144 to instrument rating and sixteen to agricultural rating.

During 1964-65 pupils of the Australian flying training organizations (aero clubs and commercial flying schools) received 351 private licences, 180 commercial licences and forty-seven instructor ratings. Subsidized hours flown by aero clubs and flying schools totalled 139,877 hours out of a total of 185,903 hours flown and their subsidy earnings totalled \$215,890. A limit placed on the subsidy restricted the total payment to \$150,000. During the year fourteen clubs were also assisted with the purchase of eighteen aircraft. The value of this assistance under the Aircraft Replacement Fund was \$20,000. The permanent secretariats of the Royal Federation of Aero Clubs and the Commercial Flying Schools also received \$16,000 and \$2,000 respectively during 1964-65 as additional financial assistance.

Thirty-nine clubs were affiliated with the Gliding Federation of Australia in 1964-65 and there were 1,572 members. During 1964-65 the Commonwealth assisted gliding clubs to the extent of \$12,000. This amount was allocated as follows: \$6,000 on the basis of active membership and certificates and awards gained, \$2,000 to the National Gliding School, \$4,000 for development and design work and secretarial functions. The total of all subsidy payments and financial assistance to flying training organizations and the gliding movement during 1964-65 was \$300,000.

Aerodromes

The number of aerodromes throughout Australia and its Territories at 30 June 1965 was 647. One hundred and twenty-two were owned by the Commonwealth Government and 525 by local authorities and private interests. Capital expenditure on aerodrome construction increased from \$4.54 million in 1963-64 to \$9.10 million in 1964-65. Maintenance expenditure on Commonwealth-owned aerodromes was \$3.31 million, and development grants to licensed aerodromes participating in the Local Ownership Plan totalled \$1 million. The two major projects at Melbourne and Sydney included in the five-year airports programme, which ends in 1967-68, are proceeding, and each is estimated to cost approximately \$40 million. The projects as a whole are expected to be completed in 1969, but progressive use will be made of the facilities as they become available. The Commonwealth Government approved an additional expenditure of \$16 million over the next five years to make those airport improvements necessary for the operation of additional Boeing 727's and the first DC9's to be introduced by airlines.

Airways facilities

Concurrently with the five-year aerodrome development programme, the Commonwealth Government has approved major extensions and improvements to Australia's air navigation and communications system. New long-range radar units have been installed at Sydney and Adelaide to assist air traffic control, and other units are being established at Melbourne, Brisbane, Perth, Canberra, and Point Lookout, northern New South Wales. Total cost of this radar programme is approximately \$8 million.

Further progress has been made with the programme, started in 1961, of increasing the number of laterally spaced air routes in heavy traffic areas throughout Australia and improving the network of radio navigational aids defining them. A further seventeen navigational aids were put into operation during the year and another fourteen are being installed. The number of navigational aids operating throughout the Commonwealth at 30 June 1965 totalled 295. These included 84 distance measuring equipment (DME) beacons, 37 visual aural ranges (VAR), 150 non-directional beacons (NDB), 7 VHF omni radio ranges (VOR), and 13 instrument landing systems (ILS).

Aircraft on the Australian register

The numbers of aircraft of various types on the Australian register at 30 June 1965 are set out in the following table.

CIVIL AVIATION: AIRCRAFT ON AUSTRALIAN REGISTER, 30 JUNE 1965

Type of aircraft	Number of engines				Total aircraft
	One	Two	Three	Four	
Fixed-wing powered aircraft—					
Turbo-jet . . . . .	..	1	4	15	20
Turbo-prop . . . . .	..	24	..	32	56
Piston-engined 20,000 lb. and over all-up weight .	..	79	..	20	99
Piston-engined under 20,000 lb. all-up weight .	1,829	150	9	3	1,991
Helicopters	40	1	..	..	41
<i>Total powered aircraft .</i>	<i>1,869</i>	<i>255</i>	<i>13</i>	<i>70</i>	<i>2,207</i>
Glinters . . . . .	..	..	..	..	164

Particulars of powered aircraft according to manufacturer and air navigation class in which registered, and further details of gliders, may be found in the bulletin *Transport and Communication*, No. 56, 1964-65.

Registrations, licences, etc. in force in Australia

The following table provides a summary of the civil aviation registrations and licences in force in Australia at 30 June in each year 1961 to 1965.

CIVIL AVIATION: REGISTRATIONS, LICENCES, ETC., AUSTRALIA(a)
1961 TO 1965

	30 June—				
	1961	1962	1963	1964	1965
Registered aircraft owners	850	938	1,006	1,167	1,293
Registered aircraft(b)	1,502	1,600	1,787	1,936	2,207
Pilots' licences—					
Private	3,206	3,627	4,066	4,720	5,382
Private helicopter	2	2	3	6	6
Commercial	973	1,090	1,159	1,263	1,411
Senior commercial	147	154	176	189	192
Commercial helicopter	34	33	42	53	59
Senior commercial helicopter . . . . .	..	..	..	..	5
Student	4,151	4,433	4,845	5,676	6,907
Student helicopter	10	12	15	41	66
1st class airline transport	659	690	684	670	750
2nd class airline transport	471	432	464	603	725
Flight navigators' licences	142	141	135	137	154
1st class flight radio-telegraph operators' licences	43	37	20	19	18
Flight radio-telephone operators' licences	3,679	5,370	6,552	7,956	9,102
Flight engineers' licences	200	175	168	215	429
Aircraft maintenance engineers' licences	2,492	2,485	2,521	2,553	2,779
Aerodromes, Australia—					
Government(c)	132	129	122	113	110
Licensed(d)	351	359	380	381	386
Flying-boat bases(e)	13	13	13	13	13

(a) Except for aerodromes and flying-boat bases, includes the Territory of Papua-New Guinea. (b) Excludes gliders. At 30 June 1965 there were 164 gliders registered. (c) Under the control and management of the Department of Civil Aviation. (d) Under the control and management of a municipality, shire, station owner, private individual, etc. Includes emergency aerodromes. (e) Includes alighting areas.

Accidents and casualties

Particulars of accidents in which persons were killed or injured, involving aircraft on the Australian register, are shown in the following table for the years 1960-61 to 1964-65.

**CIVIL AVIATION: AUSTRALIAN AIRCRAFT(a), ACCIDENTS
INVOLVING CASUALTIES(b), 1960-61 TO 1964-65**

—	1960-61	1961-62	1962-63	1963-64	1964-65
Number	40	46	32	33	30
Persons killed	28	52	16	24	20
Persons injured	38	38	26	26	22

(a) Aircraft on Australian register and gliders irrespective of location of accident.
(b) Includes parachutists killed.

**POSTS; INTERNAL AND OVERSEA TELECOMMUNICATION SERVICES;
RADIOCOMMUNICATION STATIONS**

In this division, particulars for the Australian Capital Territory are included with those for New South Wales, and the South Australian figures include particulars for the Northern Territory, unless otherwise indicated. The Central Office of the Postmaster-General's Department is located in Melbourne, Victoria.

Postmaster-General's Department—General

Under the provisions of the *Post and Telegraph Act* 1901-1961, the Postmaster-General's Department is responsible for the control and operation of postal, telegraphic and telephonic services throughout Australia. The Postmaster-General's Department is also responsible for the provision and operation of the transmitters and technical facilities required for broadcasting and television services by the Australian Broadcasting Commission (*see* pages 496-8), and, in conjunction with the Overseas Telecommunications Commission (*see* pages 493-5), with whom there is close co-operation, provides facilities for communication with overseas countries. Subsidiary to its major activities, the Postmaster-General's Department performs a number of important functions for other Commonwealth and State departments, including the payment of pensions, child endowment, and military allotments, the provision of banking facilities on behalf of the Commonwealth Savings Bank, the sale of tax and duty stamps, and the collection of land tax.

Postal facilities

The following table shows the number of post offices, the area in square miles and the number of inhabitants to each post office (including non-official offices), and the number of inhabitants to each 100 square miles in each State and in Australia at 30 June 1965.

**POSTAL FACILITIES: RELATION TO AREA AND POPULATION, STATES
30 JUNE 1965**

—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Post offices—							
Official	516	329	233	173	149	54	1,454
Non-official	1,899	1,807	990	752	486	440	6,374
Total	2,415	2,136	1,223	925	635	494	7,828
Square miles of territory per office	129	41	545	973	1,537	53	379
Inhabitants per office	1,740	1,465	1,296	1,149	1,244	743	1,423
Inhabitants per 100 square miles .	1,354	3,562	238	118	81	1,392	375

Employees

The number of employees and mail contractors in the Central Office and in each of the States at 30 June 1965 is given in the following table.

POSTAL EMPLOYEES: CENTRAL OFFICE AND STATES, 30 JUNE 1965(a)

Employees	Central Office	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Full-time—								
Permanent officers	1,531	23,452	16,385	9,964	6,650	4,966	2,579	65,527
Temporary and exempt officers	265	9,998	9,007	2,513	2,517	1,251	790	26,341
Total, full-time	1,796	33,450	25,392	12,477	9,167	6,217	3,369	91,868
Other—								
Non-official postmasters and staff . . . . .	..	2,348	2,427	1,235	931	533	471	7,945
Telephone office-keepers . . . . .	..	294	138	421	108	266	17	1,244
Mail contractors (including persons employed to drive vehicles) . . . . .	..	2,047	998	1,139	363	290	193	5,030
Total, other . . . . .	..	4,689	3,563	2,795	1,402	1,089	681	14,219
Grand total	1,796	38,139	28,955	15,272	10,569	7,306	4,050	106,087

(a) Excludes 3,147 part-time staff.

Cash revenue, branches—Postmaster-General's Department

The cash revenue (actual collections during year as recorded for Treasury purposes) in respect of each branch of the Department during the year 1964-65 is shown in the following table.

**POSTMASTER-GENERAL'S DEPARTMENT: CASH REVENUE, BY SOURCE
CENTRAL OFFICE AND STATES, 1964-65
(\$'000)**

Source	Central Office	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Postal	7,078	43,043	30,372	13,210	9,285	6,591	2,603	112,182
Telegraph	2,114	6,196	4,129	2,939	2,186	1,373	415	19,352
Telephone	2,649	93,952	68,027	31,205	23,038	15,061	6,709	240,641
Miscellaneous . . . . .	..	142	209	45	27	37	13	473
Total	11,841	143,333	102,737	47,399	34,536	23,062	9,740	372,648

The following table shows the cash revenue (actual collections) of the Department for each of the five years 1960-61 to 1964-65.

**POSTMASTER-GENERAL'S DEPARTMENT: CASH REVENUE
BY SOURCE, AUSTRALIA, 1960-61 TO 1964-65
(\$'000)**

Source	1960-61	1961-62	1962-63	1963-64	1964-65
Postal	91,780	94,208	98,854	105,954	112,182
Telegraph	14,550	14,896	15,838	17,254	19,352
Telephone	165,464	170,332	184,630	205,564	240,641
Miscellaneous	448	192	350	506	473
Total	272,242	279,628	299,672	329,278	372,648

Cash expenditure, Postmaster-General's Department

The following table shows, as far as possible, the distribution of cash expenditure (actual payments during year as recorded for Treasury purposes) in each State and Central Office during 1964-65. The table must not be regarded as a statement of the working expenses of the Department, since items relating to new works, interest, etc., are included therein.

POSTMASTER-GENERAL'S DEPARTMENT: CASH EXPENDITURE
CENTRAL OFFICE AND STATES, 1964-65
 (\$'000)

	Central Office	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Expenditure from ordinary services votes—								
Salaries and payments in the nature of salary	1,954	44,084	32,209	17,357	11,399	7,530	3,957	118,490
Administration	804	5,811	4,785	1,887	1,591	977	525	16,380
Stores and material	178	1,185	953	456	333	226	124	3,455
Mail services	15,171	4,111	2,214	1,932	979	555	264	25,226
Engineering services (other than capital works)	3,008	30,548	23,409	11,016	8,428	5,971	3,173	85,553
Other services	319	..	..	..	..	..	..	319
<i>Total, ordinary services votes</i>	<i>21,434</i>	<i>85,739</i>	<i>63,570</i>	<i>32,648</i>	<i>22,730</i>	<i>15,259</i>	<i>8,043</i>	<i>249,423</i>
Rent, repairs, maintenance . . . . .	..	1,440	1,971	614	481	268	126	4,900
Capital works and services—								
Plant and equipment	(a) 1,902	54,325	39,612	17,064	15,225	10,884	5,790	144,802
New buildings, etc. . . . .	..	5,751	3,260	2,996	1,260	1,384	435	15,086
Grand total	23,336	147,255	108,413	53,322	39,696	27,795	14,394	414,211

(a) Includes expenditure on research laboratories.

The following table shows the distribution of cash expenditure (actual payments) of the Department, for Australia as a whole, for each of the years 1960-61 to 1964-65.

POSTMASTER-GENERAL'S DEPARTMENT: CASH EXPENDITURE
AUSTRALIA, 1960-61 TO 1964-65
 (\$'000)

	1960-61	1961-62	1962-63	1963-64	1964-65
Expenditure from ordinary services votes—					
Salaries and payments in the nature of salary	97,382	100,860	102,256	107,964	118,490
Administration	11,622	12,230	12,302	14,588	16,380
Stores and material	5,134	4,746	3,594	3,308	3,455
Mail services	20,752	21,770	23,036	24,152	25,226
Engineering services (other than capital works)	82,012	86,370	68,812	77,350	85,553
Other services	284	250	280	280	319
<i>Total, ordinary services votes</i>	<i>217,186</i>	<i>226,226</i>	<i>210,280</i>	<i>227,642</i>	<i>249,423</i>
Rent, repairs, maintenance	3,086	3,318	3,526	4,206	4,900
Capital works and services—					
Plant and equipment	74,592	81,022	111,594	122,406	144,802
New buildings, etc.	9,698	10,856	11,886	14,716	15,086
Other expenditure, not allocated to States	7,856	(a)	(a)	(a)	(a)
Grand total	312,418	321,422	337,286	368,970	414,211

(a) Items no longer debited against Postmaster-General's Department.

Profit or loss, Postmaster-General's Department

The foregoing tables of cash revenue and expenditure represent actual collections and payments made, and cannot be taken to represent the actual results of the working of the Department for the year. The net results after providing for working expenses (including superannuation, pensions and depreciation) and interest charges (including exchange) are shown in the following table for the year 1964-65 together with summarized particulars for the year 1963-64.

**POSTMASTER-GENERAL'S DEPARTMENT: CONSOLIDATED STATEMENT
OF PROFIT AND LOSS, 1963-64 AND 1964-65**
(\$'000)

	1964-65			1963-64
	Postal service	Telecom- munications service(a)	All services	All services
Earnings	112,191	257,854	370,045	329,292
Working expenses—				
Operating and general cost.	75,070	69,637	144,707	} 217,278
Maintenance of plant and equipment	918	60,269	61,187	
Carriage of mails	28,710	..	28,710	} 49,488
Depreciation	1,851	59,887	61,738	
Superannuation and furlough liability	6,340	10,244	16,584	15,792
Total working expenses	112,889	200,037	312,926	282,558
Net earnings	—698	57,817	57,119	46,734
Interest	1,920	50,987	52,907	47,328
Profit or loss	—2,618	6,830	4,212	—594

(a) Includes the categories 'Telephone' and 'Telegraph' which were available separately for previous years.
Minus sign (—) denotes loss.

Fixed assets, Postmaster-General's Department

The following table shows particulars of the fixed assets of the Postmaster-General's Department from 1 July 1964 to 30 June 1965.

**POSTMASTER-GENERAL'S DEPARTMENT: TRANSACTIONS AFFECTING
FIXED ASSETS, 1964-65**
(\$'000)

Class of plant	Value at 1 July 1964	Adjust- ments to values	Additions during year	Instal- ments of plant written out	Value at 30 June 1965
Telecommunications plant	1,259,259	—12,409	152,081	—11,672	a1,387,259
Postal plant	7,802	..	2,106	—54	9,854
Engineers' moveable plant	29,777	..	3,691	—979	32,489
Motor vehicles	22,714	..	5,380	—3,957	24,136
Other plant and equipment	25,820	314	3,642	—635	29,142
Buildings	143,532	..	16,053	..	(b) 159,585
Land	18,547	..	428	..	18,975
Total	1,507,451	—12,094	183,381	—17,298	1,661,440

(a) Includes plant valued at \$66,989,552 under construction. (b) Includes buildings valued at \$11,323,134 under construction.

Minus sign (—) denotes reduction in values or assets.

Postal services

Mail delivery points

The numbers of mail delivery points located in each State at 30 June 1965 are shown in the following table.

MAIL DELIVERY POINTS: STATES, 30 JUNE 1965

State	Postmen's delivery	Roadside delivery	Private boxes	Private mail bag services
New South Wales	1,186,332	47,895	62,505	6,641
Victoria	788,746	31,166	38,580	6,415
Queensland	395,154	27,107	31,880	4,770
South Australia	296,141	938	23,447	2,882
Western Australia . . .	190,135	15,970	17,147	725
Tasmania	72,798	930	6,980	1,665
Australia	2,929,306	124,006	180,539	23,098

Postal articles handled

The following two tables show the number of postal articles handled by the Australian Post Office during the year 1964-65. Mail matter posted in Australia for delivery therein is necessarily handled at least twice, but only the number of distinct articles handled is included in the following tables.

POSTAL ARTICLES HANDLED(a): STATES, 1964-65

('000)

State	Letters (b)	News- papers and packets (c)	Parcels (d)	Regis- tered articles (e)	Letters (b)	News- papers and packets (c)	Parcels (d)	Regis- tered articles (e)
	Posted for delivery within Australia				Posted for delivery overseas			
New South Wales . . .	689,257	143,763	6,272	3,472	47,820	11,474	272	983
Victoria	542,554	89,312	5,183	2,313	27,281	4,481	163	515
Queensland	235,787	30,828	2,346	1,403	9,782	1,091	39	43
South Australia . . .	165,279	16,901	1,326	696	7,247	1,184	47	59
Western Australia . .	136,287	11,873	1,001	575	4,697	721	28	62
Tasmania	46,849	7,475	239	365	546	75	10	3
Australia	1,816,013	300,152	16,367	8,824	97,373	19,026	559	1,665
State	Received from overseas				Total postal matter dealt with			
	Letters (b)	News- papers and packets (c)	Parcels (d)	Regis- tered articles (e)	Letters (b)	News- papers and packets (c)	Parcels (d)	Regis- tered articles (e)
New South Wales . . .	56,494	29,961	574	1,006	793,571	185,198	7,118	5,461
Victoria	44,207	11,867	380	544	614,042	105,660	5,726	3,372
Queensland	6,946	5,129	104	32	252,515	37,048	2,489	1,478
South Australia . . .	5,571	5,467	88	30	178,097	23,552	1,461	786
Western Australia . .	3,970	6,577	70	46	144,954	19,171	1,099	683
Tasmania	1,713	1,999	14	4	49,108	9,549	263	371
Australia	118,901	61,000	1,230	1,662	2,032,287	380,178	18,156	12,151

(a) Number of distinct articles handled. (b) Includes letters, cards and other postal articles enclosed in envelopes and sorted with letters. (c) Includes newspapers and postal articles not included in letter mail. (d) Includes registered, cash on delivery and duty parcels. (e) Includes registered articles other than parcels.

The next table shows the total postal articles handled in Australia during each of the years 1960-61 to 1964-65.

POSTAL ARTICLES HANDLED(a): AUSTRALIA, 1960-61 TO 1964-65
(^{'000})

Year	Letters(b)	Newspapers and Packets(c)	Parcels(d)	Registered articles(e)	Total postal articles handled
1960-61 . .	1,700,544	318,614	15,976	12,935	2,048,069
1961-62 . .	1,748,054	324,694	15,854	12,357	2,100,959
1962-63 . .	1,835,869	337,644	16,545	12,339	2,202,397
1963-64 . .	1,952,029	360,510	17,010	12,315	2,341,864
1964-65 . .	2,032,287	380,178	18,156	12,151	2,442,772

For footnotes see previous table.

During 1964-65 the total amounts paid for the carriage of mails, as disclosed by the Profit and Loss Account of the Postal Branch, were as follows: road, \$8,918,882; railway, \$3,462,384; sea, \$567,012; air—internal, \$3,314,886, oversea, \$12,446,966; grand total, \$28,710,130.

Money orders and postal notes

The issue of money orders and postal notes is regulated by sections 74-79 of the *Post and Telegraph Act* 1901-1961. The maximum amount for which a single money order payable within Australia may be obtained is \$80, but additional orders will be issued upon request when larger amounts are to be remitted. The maximum amount permitted to be sent by any one person to a person or persons outside Australia is \$A20 a week. A postal note is not available for a sum larger than two dollars. The following table shows the number and value of money orders and postal notes issued in Australia in each of the years 1960-61 to 1964-65 and the income therefrom which has accrued to the Post Office.

MONEY ORDERS AND POSTAL NOTES: TRANSACTIONS, AUSTRALIA
1960-61 TO 1964-65

Year	Money orders			Postal notes		
	Issued		Net commission received	Issued		Poundage
	Number	Value		Number	Value	
	^{'000}	^{\$'000}	^{\$'000}	^{'000}	^{\$'000}	^{\$'000}
1960-61 . .	9,652	201,520	1,734	15,959	16,388	614
1961-62 . .	(a) 10,176	(a) 264,992	1,752	15,514	16,192	614
1962-63 . .	(a) 11,076	(a) 306,866	1,858	16,330	17,240	642
1963-64 . .	(a) 11,838	(a) 338,674	2,004	15,987	17,234	634
1964-65 . .	(a) 12,176	(a) 376,356	2,103	15,338	16,737	618

(a) Includes official money orders used in bringing to account telephone accounts and collections on War Service Homes repayments.

Of the total money orders issued in Australia during 1964-65, 11,746,719 valued at \$373,606,462 were payable in Australia, and 429,554 valued at \$2,749,122 were payable overseas. Of the total money orders paid in Australia during 1964-65, 11,756,029 (\$372,832,788) were issued in Australia, and 176,746 (\$2,671,744) were issued overseas.

Of the total postal notes paid in Australia during 1964-65 (15,626,991 valued at \$17,106,624), 10,566,493 (\$12,083,294) were paid in the State in which issued, and 5,060,498 (\$5,023,330) were paid in States other than those in which issued.

Internal telecommunication services

A review of the development of telegraph services in Australia up to 1921 appeared in Year Book No. 15, page 625, and subsequent developments of importance have been dealt with in later issues. Internal telecommunication operations now comprise telephone, telegraph and telegraph exchange (telex) services.

Wire and pole mileages

At 30 June 1965 there were 13,841,000 single wire miles of cable and 1,331,000 miles of aerial wire used for telecommunication purposes in Australia. The aerial wires were mounted on 120,630 miles of pole routes, and joint use is made of these poles for both power and telecommunication reticulation.

Telephone services in operation

In recent years there has been a noticeable increase in the number of telephone services in operation, with the two-millionth service being connected in May 1965. The following table shows the number of services in operation in each State at 30 June 1965 classified according to type of service, type of exchange to which connected, and location.

TELEPHONE SERVICES IN OPERATION: STATES, 30 JUNE 1965

—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Type of service—							
Ordinary exchange services	634,793	543,097	223,679	158,973	105,316	52,975	1,718,833
Duplex services	29,262	20,972	154	1,624	296	810	53,118
Party line services	5,203	2,868	2,922	1,510	1,320	377	14,200
Private branch exchange services	86,471	57,734	19,516	17,615	11,208	3,853	196,397
Public telephones	10,525	7,279	4,215	2,527	1,941	1,089	27,576
Connected to—							
Automatic exchanges	640,336	540,556	188,234	148,158	96,361	45,917	1,659,562
Manual exchanges	125,918	91,394	62,252	34,091	23,720	13,187	350,562
Located in—							
Metropolitan areas	483,836	417,858	121,773	118,093	81,404	21,962	1,244,926
Country areas	282,418	214,092	128,713	64,156	38,677	37,142	765,198
Total	766,254	631,950	250,486	182,249	120,081	59,104	2,010,124

The number of services in operation in Australia at 30 June 1961 to 1965 is set out hereunder.

TELEPHONE SERVICES IN OPERATION: AUSTRALIA, 1961 TO 1965

Services connected to—	30 June—				
	1961	1962	1963	1964	1965
Metropolitan exchanges—					
Automatic	1,005,984	1,065,326	1,123,391	1,188,264	1,244,926
Manual	1,510	551	..	..	..
Country exchanges—					
Automatic	256,610	288,021	322,187	361,368	414,636
Manual	366,980	364,671	366,603	369,248	350,562
All exchanges—					
Automatic	1,262,594	1,353,347	1,445,578	1,549,632	1,659,562
Manual	368,490	365,222	366,603	369,248	350,562
Total services	1,631,084	1,718,569	1,812,181	1,918,880	2,010,124

Telephone instruments connected

The number of telephone instruments in each State at 30 June 1961 to 1965 is shown in the following table together with the number of instruments at 30 June 1965 related to the population.

TELEPHONE INSTRUMENTS IN SERVICE: STATES, 1961 TO 1965
(^{'000})

30 June—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1961 . . .	889	708	277	199	126	67	2,266
1962 . . .	949	729	289	211	134	71	2,383
1963 . . .	999	773	306	225	145	75	2,523
1964 . . .	1,053	819	324	241	155	78	2,670
1965 . . .	1,107	861	341	256	164	82	2,811
Number at 30 June 1965 per 100 population .	25.9	26.8	21.2	23.5	20.4	22.5	24.7

Internal telephone traffic

Local and trunk telephone calls made in Australia during the years 1960-61 to 1964-65 are set out hereunder.

LOCAL AND TRUNK LINE TELEPHONE CALLS: AUSTRALIA, 1960-61 TO 1964-65

Year	Effective paid local calls		Trunk line calls		Total calls
	Total	Per service	Total	Per service	
	^{'000}	number	^{'000}	number	^{'000}
1960-61 . . .	1,625,000	997	75,000	46	1,700,000
1961-62 . . .	1,650,000	960	76,500	45	1,726,500
1962-63 . . .	1,809,000	998	84,500	47	1,893,500
1963-64 . . .	1,958,000	1,020	95,700	50	2,053,700
1964-65 . . .	2,043,000	1,016	106,500	53	2,149,500

Subscriber trunk dialling (S.T.D.) facilities were introduced during the year 1961-62 from Canberra to the Sydney network and from Warragul (Victoria) to Melbourne. At the end of 1965 subscriber trunk dialling was in operation at fifty-two exchanges, serving some 116,000 subscribers.

Internal telegraphs

Telegrams can be lodged at any post office, telephone office or from any public telephone equipped for multi-coin operation. In addition, telegrams can be despatched from any subscriber's telephone or telegraph exchange (telex) equipment. The number of telegrams of various types transmitted within the Commonwealth during the years 1960-61 to 1964-65 is set out hereunder.

INTERNAL TELEGRAPH TRAFFIC: AUSTRALIA, 1960-61 TO 1964-65
(^{'000})

Year	Ordinary (a)	Urgent	Press	Letter- grams	Meteoro- logical service	Unpaid (depart- mental)	Total telegrams
1960-61 . . .	16,522	592	145	98	886	631	18,874
1961-62 . . .	16,429	558	147	89	914	602	18,739
1962-63 . . .	16,663	492	148	91	948	582	18,924
1963-64 . . .	17,783	545	130	86	920	621	20,085
1964-65 . . .	18,302	532	96	65	912	643	20,550

(a) Includes radiograms.

Of the total number of 20,550,000 internal telegrams despatched during 1964-65, 10,496,500 or 51 per cent were lodged by telephone and 1,594,000 were lodged by telex subscribers.

Teleprinter exchange service (Telex)

Particulars of the operations of the teleprinter exchange network, which are additional to the telegraph traffic shown above, are given hereunder.

TELEPRINTER EXCHANGE NETWORK (TELEX) AUSTRALIA, 1960-61 TO 1964-65

Year	Subscribers at end of year	Local calls	Trunk calls
1960-61 . .	976	23,984	488,349
1961-62 . .	1,215	36,210	696,482
1962-63 . .	1,439	68,769	931,783
1963-64 . .	1,815	101,315	1,311,023
1964-65 . .	2,179	143,631	1,634,359

Oversea telecommunication services

The Overseas Telecommunications Commission (Australia) is the authority responsible for the establishment, maintenance, operation and development of Australia's oversea public telegraph, phototelegraph and telex services by cable and by radio, and the provision, maintenance, and development of cable and radio facilities for the conduct of Australia's oversea telephone services and of the facilities for radiotelephone services with ships at sea.

The Commission was established under the *Overseas Telecommunications Act 1946-1963*. This Act implemented, in Australia, a recommendation of the 1945 Commonwealth Telecommunications Conference for national ownership of the external telecommunication services of the British Commonwealth countries concerned and for the establishment of a representative advisory board, the Commonwealth Telecommunications Board, to co-ordinate their development.

The Commission provides telegraph, telex, phototelegraph, and, in conjunction with the Postmaster-General's Department, telephone services with oversea countries and Australian Territories. Leased one- and two-way circuits are also provided for large commercial users. In addition, it operates the Australian coastal radio services for communication with ships at sea in Australian waters and high frequency radio services for communication with ships in any part of the world. The Commission's coastal radio stations also provide certain services to a number of remote stations within Australia and its Territories.

Details of oversea communication systems operating in Australia prior to 1946 and developments leading to the establishment of the Commission were published in Year Book No. 37, pages 220-4.

To meet Australia's increasing demand for oversea communication channels, and because of limitations to performance and capacity inherent in current forms of telegraph cables and high frequency radio systems, the Commission, in partnership with the oversea telecommunications authorities of Britain, Canada and New Zealand, installed a large capacity telephone cable across the Pacific Ocean, connecting Australia, New Zealand and Canada via Suva and Honolulu. This project stemmed from the Pacific Cable Conference between representatives of Britain, Canada, Australia and New Zealand held in Sydney during 1959. Work was commenced in August 1960, and the cable (COMPAC) was opened in December 1963. This cable forms part of the British Commonwealth round-the-world large capacity cable scheme, in which a complementary cable between Britain and Canada (CANTAT) was officially opened in December 1961. The two cable connections are linked across Canada by a microwave system. The Commonwealth cable system feeds into the United States of America network at Hawaii, and into the European network at London.

The next stage of the system, the south-east Asia cable project (SEACOM), will extend the large capacity telephone cable from Sydney to Singapore and Kuala Lumpur via Cairns, Madang, Guam, Hong Kong and Jesselton. The Singapore-Jesselton section was opened for service on 15 January 1965, and the Jesselton-Hong Kong section on 31 March 1965. The whole project is scheduled for opening early in 1967."

Separate management committees, comprising representatives of the overseas telecommunication authorities and the partner Governments, Britain, Canada, Australia and New Zealand, with the addition, for SEACOM, of Malaysia and Singapore, administered COMPAC and SEACOM projects up to November 1965, when these committees were amalgamated into the Commonwealth Cable Management Committee.

Two years of international discussion and negotiations were climaxed by the signing in August 1964 by a number of countries, including Australia, of agreements to establish the first global commercial communications satellite system, of which the 'space segment' is estimated to cost \$US200 million. 'Space segment' is a broad description of the communications satellites and the tracking, control, command and related facilities required to support operation of the satellites. An Australian ground station, owned and operated by the Overseas Telecommunications Commission, is being built at Carnarvon, Western Australia, at a cost exceeding \$A2 million.

International telecommunication traffic

Particulars of the volume of international telegram business, originating and terminating in Australia, transacted over the cable and radio services during 1964-65 are shown in the following table.

INTERNATIONAL TELEGRAPHIC TRAFFIC: AUSTRALIA, 1964-65(a)
(^{'000} words)

Class of traffic	Words transmitted to—			Words received from—		
	Common-wealth countries	Foreign countries	Total	Common-wealth countries	Foreign countries	Total
Letter . . .	9,479	9,624	19,103	8,678	8,425	17,103
Ordinary . . .	9,405	7,275	16,680	8,890	5,542	14,432
Press . . .	3,170	162	3,332	9,449	481	9,930
Greetings . . .	1,341	..	1,341	1,511	..	1,511
Government . . .	406	462	868	714	1,181	1,895
Urgent . . .	559	148	707	397	95	492
Other . . .	10	..	10	67	..	67
Total . . .	24,370	17,671	(b) 42,041	29,706	15,724	(c) 45,430

(a) Year ended 31 March. (b) Excludes 3,298,000 words to Australian external Territories.
(c) Excludes 5,163,000 words from Australian external Territories.

The following table shows particulars of overseas telecommunication traffic other than telegraphic between Australia and overseas countries for the year ended 31 March 1965.

INTERNATIONAL TELECOMMUNICATION TRAFFIC OTHER THAN TELEGRAPHIC
AUSTRALIA, 1964-65(a)

Service	Transmissions to—			Transmissions from—		
	Common-wealth countries	Foreign countries	Total (b)	Common-wealth countries	Foreign countries	Total (c)
Telephone . . . paid minutes	774,378	371,487	1,145,865	892,648	350,481	1,243,129
Telex . . . paid minutes	279,419	433,967	713,386	274,730	504,111	778,841
Phototelegrams . . . pictures	931	40	971	8,627	91	8,718

(a) Year ended 31 March. (b) Excludes 55,735 paid telephone minutes and 1,240 paid telex minutes transmitted to Australian external Territories. (c) Excludes 76,692 paid telephone minutes, 594 paid telex minutes and 28 phototelegram pictures transmitted from Australian external Territories.

Coast stations

The Overseas Telecommunications Commission operates fifteen coastal radio stations at points around the Australian coast, five around the Papua-New Guinea coast and one at Norfolk Island. During the year ended 31 March 1965 the coastal radio service handled 4,272,136 paid words to ships and 2,750,969 words from ships. Ship calls over the radio telephone service extended over 24,414 paid minutes.

Radiocommunication stations authorized

The following table shows particulars of the different classes of radiocommunication stations authorized in Australia at 30 June 1965. Figures relate to radiocommunication (radio telegraph and radiotelephone) stations only; particulars of broadcasting stations and of broadcast listeners' licences are shown on pages 497 and 499 respectively.

RADIOCOMMUNICATION STATIONS AUTHORIZED, STATES AND TERRITORIES
30 JUNE 1965

Class of station	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Transmitting and receiving—									
Fixed(a)—									
Aeronautical	11	4	12	5	14	9	5	1	61
Services with other countries	60	13	4	179	12	17	3	..	92
Outpost(b)	244	1	538	57	410	38	184	..	1,573
Other	314	221	209	57	109	38	54	4	1,006
Land(c)—									
Aeronautical	67	20	33	8	22	8	24	1	183
Base—									
Land mobile services	1,719	1,158	799	467	353	243	23	76	4,838
Harbour mobile services	30	24	24	7	27	6	..	..	118
Coast(d)	27	15	20	16	20	21	4	..	123
Special experimental	154	135	49	51	53	16	6	..	464
Mobile(e)—									
Aeronautical	495	316	286	121	203	32	35	..	1,488
Land mobile services	18,438	13,128	7,046	5,546	3,406	1,650	316	332	49,862
Harbour mobile services	203	162	65	45	93	50	..	..	618
Outpost	237	359	227	359	35	646	..	..	1,863
Ship	1,493	407	873	312	349	279	40	..	(f) 3,937
Amateur	1,612	1,511	550	649	383	170	17	54	4,946
Total, transmitting and receiving	25,404	17,115	10,867	7,690	5,813	2,574	1,357	468	71,172
Receiving only—									
Fixed(a)	152	193	86	..	49	..	..	..	480
Total, receiving only	152	193	86	..	49	..	..	..	480
Grand total	25,256	17,308	10,953	7,690	5,862	2,574	1,357	468	f 71,652

(a) Stations established at fixed locations for communication with other stations similarly established. (b) Stations established in out-back areas for communication with control stations such as those of the Royal Flying Doctor Service. (c) Stations established at fixed locations for communication with mobile stations. (d) Land stations for communication with ocean-going vessels. (e) Equipment installed in aircraft (aeronautical), motor vehicles (land mobile services), harbour vessels (harbour mobile services) and ocean-going vessels (ships), and mobile equipment of organizations such as the Royal Flying Doctor Service. (f) Includes 184 stations which cannot be classified according to State or Territory.

BROADCASTING AND TELEVISION

Broadcasting and television services in Australia operate under the *Broadcasting and Television Act 1942–1965* and comprise the National Broadcasting Service, the National Television Service, the Commercial Broadcasting Service and the Commercial Television Service. General control of these services is a function of the Australian Broadcasting Control Board. Licence fees for commercial broadcasting and television stations are payable under the *Broadcasting Stations Licence Fees Act 1964* and the *Television Stations Licence Fees Act 1964* respectively.

Particulars of the composition, functions and responsibilities of the Australian Broadcasting Control Board are shown in Year Book No. 51, pages 594–5.

Broadcasting services

The National Broadcasting Service

In sound broadcasting the programmes of the National Broadcasting Service are provided by the Australian Broadcasting Commission through transmitters operated by the Postmaster-General's Department.

Technical facilities. At 30 June 1965 the National Broadcasting Service comprised seventy-one transmitting stations, of which sixty-three were medium frequency and eight high frequency.

The medium-frequency transmitters operate in the broadcast band 525 to 1,605 kilocycles a second. The high-frequency stations, using frequencies within the band three to thirty megacycles a second, provide service to listeners in sparsely populated parts of Australia such as the north-west of Western Australia, the Northern Territory, and northern and central Queensland.

Many of the programmes provided by country stations are relayed from the capital cities, high-quality programme transmission lines being used for the purpose. A number of programme channels are utilized to link national broadcasting stations in the capital cities of Australia, and, when necessary, this system is extended to connect both the national and commercial broadcasting stations.

In June 1965 fifty-one of the Australian medium-frequency stations were situated outside the six State capital cities. Additional country stations are to be established, and, when these additions are complete, the medium-frequency and high-frequency stations together will provide for clear reception of the programmes of the National Broadcasting Service in practically every part of Australia.

Programme facilities. The programmes of the Australian Broadcasting Commission cover a wide range of activities. The proportion of broadcasting time allocated to the various types of programme during 1964-65 was as follows: classical music, 24.6 per cent; light entertainment, 21.4 per cent; news, 8.0 per cent; sporting, 5.9 per cent; light music, 6.4 per cent; talks, 7.0 per cent; drama and features, 3.7 per cent; education, 3.5 per cent; Parliament, 3.8 per cent; religious, 3.1 per cent; children's programmes, 2.5 per cent; rural, 1.6 per cent; and non-departmental and special programmes, 8.5 per cent. Further particulars of the operations of the Australian Broadcasting Commission in respect of music, drama and features, youth education, talks, rural broadcasts, news and other activities are shown in Year Book No. 51, pages 596-7.

The Commercial Broadcasting Service

Commercial broadcasting stations are operated under licences granted and renewed by the Postmaster-General after taking into consideration any recommendations which have been made by the Broadcasting Control Board. The initial period of a licence is five years and renewals are granted for a period of one year. The fee payable for a licence is \$50 on the grant of the licence, and thereafter \$50 a year plus an amount ascertained by applying the following rates to 'gross earnings', within the meaning of the *Broadcasting Stations Licence Fees Act 1964*, during the preceding financial year—1 per cent up to \$1,000,000; 2 per cent \$1,000,001 to \$2,000,000; 3 per cent \$2,000,001 to \$4,000,000; and 4 per cent over \$4,000,000.

Oversea Broadcasting Service

There are seven high-frequency stations at Shepparton and one at Lyndhurst, Victoria, which provide the overseas service known as 'Radio Australia'. As in the case of the National Broadcasting Service, these stations are maintained and operated by the Postmaster-General's Department, and their programmes are arranged by the A.B.C. The programmes, which give news and information about Australia presented objectively, as well as entertainment, are directed mainly to south-east Asia and the Pacific. The overseas audience has grown very substantially in recent years, as evidenced by a large and increasing number of letters from listeners abroad.

Broadcasting stations

The following table shows the number of broadcasting stations in operation at 30 June 1965.

BROADCASTING STATIONS: STATES AND TERRITORIES, 30 JUNE 1965

Type of station	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
National—									
Medium frequency . . .	18	5	13	8	9	4	4	2	63
High frequency . . .	1	3	2	..	2	..	..	..	8
Oversea (high frequency) . . .	..	8	..	..	..	..	..	..	8
Commercial (medium frequency) . . .	37	20	22	8	14	8	1	1	111
Total	56	36	37	16	25	12	5	3	190

Tables showing the call sign, location, frequency and aerial power of national and commercial broadcasting stations in operation at 30 June 1965 are shown in *Transport and Communication Bulletin No. 56*.

Television services

The National Television Service

The National Television Service is provided by the Australian Broadcasting Commission through transmitters operated by the Postmaster-General's Department. The first national station (ABN Sydney) commenced regular transmissions on 5 November 1956. At 30 June 1965 twenty-four stations were operating. Ten additional national television stations had been authorized but had not commenced to operate by that date. It is planned that all services will be in operation by the end of 1966.

The television programmes provided by the Australian Broadcasting Commission cover a wide range of activities. The proportion of television time allocated among the A.B.C.'s various departments to 30 June 1965 was as follows: Drama and features, 21.3 per cent; talks, 18.2 per cent; sport 10.7 per cent; children's session, 8.7 per cent; news, 6.4 per cent; light entertainment, 7.2 per cent; education, 14.6 per cent; music, 3.1 per cent; religion, 2.6 per cent; rural services, 2.2 per cent; non-departmental, 5.0 per cent. A summary of the activities of the departments in the field of television is given in the following paragraphs. Transmission time for the year ended 30 June 1965 totalled 68,500 hours.

Further particulars of the operation of the National Television Service in respect of talks, drama and features, music, rural services, education, news and other activities are shown in Year Book No. 51, pages 598-9.

The Commercial Television Service

Commercial television stations are operated under licences granted and renewed by the Postmaster-General. The first commercial station (TCN Sydney) commenced regular transmission on 16 September 1956. At 30 June 1965 thirty-one television stations were operating.

The initial grant of a licence is for a period of five years and thereafter the licence is renewable annually. The fee payable is \$200 for the first year and thereafter \$200 a year plus an amount ascertained by applying the following rates to 'gross earnings', within the meaning of the *Television Stations Licence Fees Act 1964*, during the preceding financial year—1 per cent up to \$1,000,000; 2 per cent \$1,000,001 to \$2,000,000; 3 per cent \$2,000,001 to \$4,000,000; and 4 per cent over \$4,000,000.

Television stations

During the year ended 30 June 1965 the following national television stations commenced regular transmissions: New South Wales—ABDN channel 2, Grafton-Kempsey area; ABMN channel 0, South Western slopes and Eastern Riverina area; Victoria—ABAV channel 1, Upper Murray area; Queensland—ABTQ channel 3, Townsville area; South Australia—ABNS channel 1, Spencer Gulf North area; Western Australia—ABSW channel 5, Bunbury area. The following commercial television stations also commenced regular transmissions during the year ended 30 June 1965. New South Wales—TEN channel 10, Sydney; NEN channel 9, Upper Namoi area; NRN channel 10, Grafton-Kempsey area; Victoria—ATV channel 0, Melbourne; AMV channel 4, Upper Murray area; Queensland—WBQ channel 8, Wide Bay area; Western Australia—STW channel 9, Bickley area. Particulars of all television stations in operation at 31 December 1964 are shown in Year Book No. 51, pages 598-9. The following table shows the number of television stations in operation at 30 June 1965.

**TELEVISION STATIONS: STATES AND AUSTRALIAN CAPITAL TERRITORY
30 JUNE 1965**

Type of station and location	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	Australian Capital Territory	Total
National—								
Metropolitan . . .	1	1	1	1	1	1	1	7
Country . . .	6	5	3	1	1	1	..	17
Total . . .	7	6	4	2	2	2	1	24
Commercial—								
Metropolitan . . .	3	3	2	2	2	1	1	14
Country . . .	7	5	4	..	..	1	..	17
Total . . .	10	8	6	2	2	2	1	31
All stations . . .	17	14	10	4	4	4	2	55

Tables showing the call sign, location, frequencies, polarization, aerial power and weekly hours of transmission of National and Commercial television stations in operation at 30 June 1965 are shown in *Transport and Communication*, Bulletin No. 56.

Broadcast listeners' and television viewers' licences

Broadcast listeners', television viewers', and combined receiving licences are issued at post offices in accordance with the provisions of the *Broadcasting and Television Act* 1942-1964, which stipulates that, except as prescribed, a person shall not use, maintain or have in his possession a broadcast or television receiver unless there is in force a licence which applies to that receiver. A broadcast listener's licence or a television viewer's licence, whichever is appropriate, authorizes the operation of any broadcast receiver or any television receiver, which is: (a) in the possession of the holder of a licence, or of a member of his family, at the address specified in the licence and is ordinarily kept at that address; (b) installed in a vehicle which is ordinarily in the possession of the holder, or a member of his family, and is ordinarily kept at that address when not in use. A person who has both broadcast and television receivers at the one address is required to take out a combined receiving licence, provision for which was introduced by legislation effective from 1 April 1965.

A licence may be granted free of charge to a blind person over 16 years of age or to a person or authority conducting a school, and at a concession rate to certain classes of pensioners. Receivers provided for the use of inmates of an institution (including a hospital) are covered by an appropriate licence held by the institution. Persons residing in Zone 2 may also be granted a broadcast listener's licence at a reduced rate. Zone 1 is the areas within 250 miles of specified broadcasting stations and Zone 2 is the remainder of Australia.

Each broadcast or television receiver let out on hire (except under a hire purchase agreement) must be covered by a hirer's licence held by the person or firm from whom the receiver is hired. The keeper of a lodging house (which includes a hotel, motel, boarding house or any other premises where lodging or sleeping accommodation is provided for reward) must take out a lodging house licence for each broadcast or television receiver provided by the proprietor in any room or part of the lodging house occupied or available for occupation by lodgers.

The fees payable for the various classes of licence are as follows.

BROADCAST LISTENERS' AND TELEVISION VIEWERS' LICENCES: RATES

Licence	Ordinary rate	Pensioner rate
	\$	\$
Broadcast listener's licence and hirer's licence for a broadcast receiver		
Zone 1	5.50	1.00
Zone 2	2.80	0.70
Lodging house licence for a broadcast receiver		
Zone 1	5.50	..
Zone 2	2.80	..
Television viewer's licence and hirer's licence for a television receiver	12.00	3.00
Lodging house licence for a television receiver	12.00	..
Combined receiving licence	17.00	4.00

Numbers of broadcast listeners' and television viewers' licences

The following table shows the number of broadcast listeners' licences in force at five-year intervals from 1925 to 1965.

BROADCAST LISTENERS' LICENCES IN FORCE(a): STATES, 1925 TO 1965

30 June—	N.S.W. (b)	Vic.	Qld	S.A.(c)	W.A.	Tas.	Aust.
1925	34,857	20,290	1,267	3,331	3,562	567	63,874
1930	111,253	140,072	23,335	25,729	5,755	6,048	312,192
1935	279,166	237,247	67,546	76,515	41,257	20,121	721,852
1940	458,256	348,264	151,152	124,928	87,790	42,191	1,212,581
1945(d)	548,074	394,315	180,089	146,611	98,210	47,930	1,415,229
1950(d)	683,271	505,078	260,033	195,261	133,199	64,369	1,841,211
1955	746,050	549,690	293,542	223,593	150,199	71,602	2,034,676
1960	832,659	606,587	344,198	249,148	171,693	78,900	2,283,185
1965(e)	849,291	644,618	343,401	269,040	175,443	75,849	2,357,642

(a) Includes short-term hirers' licences. (b) Includes Australian Capital Territory. (c) Includes Northern Territory. (d) Excludes licences for receivers in excess of one. These licences were introduced in July 1942 and were abolished on 31 December 1951. (e) Includes combined broadcast listeners' and television viewers' licences.

The following table shows the number of television viewers' licences in force each year at 30 June 1957 and 1960 to 1965.

TELEVISION VIEWERS' LICENCES IN FORCE(a): STATES, 1957 TO 1965

30 June—	N.S.W. (b)	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1957	28,912	44,986	..	..	..	(c) 11	73,909
1960	409,334	353,091	67,337	84,967	35,604	4,662	954,995
1961	488,516	401,395	113,954	124,808	69,628	18,985	1,217,286
1962	564,707	460,558	142,422	143,794	83,951	29,003	1,424,435
1963	637,766	530,256	178,391	167,502	95,907	45,503	1,655,325
1964	721,043	581,286	214,763	194,430	115,272	55,305	1,882,099
1965(d)	787,507	620,996	243,660	208,642	123,741	60,079	2,044,625

(a) Includes short-term hirers' licences. (b) Includes Australian Capital Territory. (c) These licences were for television sets in the north coast area of Tasmania which were able to receive programmes from Victoria. (d) Includes combined broadcast listeners' and television viewers' licences.

The numbers of combined receiving licences included in both of the foregoing tables as at 30 June 1965 are: New South Wales, 162,510; Victoria, 132,413; Queensland, 41,539; South Australia, 49,976; Western Australia, 30,670; Tasmania, 12,906; Australia, 430,014.

Of 2,044,625 television viewers' licences in force at 30 June 1965, 90,389 were held by short-term hirers, and could not be separated into metropolitan licences or country licences. Persons living in the metropolitan area held 1,325,211 or 65 per cent of the remainder. Short-term hirers' licences (included above) at 30 June 1965 were: New South Wales, 32,605; Victoria, 15,686; Queensland, 11,463; South Australia, 19,856; Western Australia, 8,807; and Tasmania, 1,972.

Revenue received from broadcast and television licence fees

The following table shows the revenue received from broadcast listeners' licence fees and television viewers' licence fees during the years 1960-61 to 1964-65. Figures for 1964-65 include revenue from fees for combined licences which took effect on 1 April 1965.

REVENUE RECEIVED FROM BROADCAST AND TELEVISION LICENCE FEES STATES, 1960-61 TO 1964-65 (\$'000)

Year	N.S.W. (a)	Vic.	Qld	S.A. (b)	W.A.	Tas.	Aust.
1960-61 . .	8,569	6,852	2,737	2,427	1,485	564	22,634
1961-62 . .	9,161	7,243	2,923	2,531	1,574	645	24,077
1962-63 . .	9,860	7,968	3,239	2,837	1,737	784	26,425
1963-64 . .	10,560	8,474	3,590	3,063	1,843	865	28,395
1964-65 . .	12,400	9,811	4,230	3,586	2,124	1,006	33,157

(a) Includes Australian Capital Territory.
fees.

(b) Includes Northern Territory in respect of broadcast licence

CHAPTER 15

WELFARE SERVICES

This chapter relates to welfare services other than those concerned specifically with education, health and repatriation. The latter are dealt with, in the main, in the relevant chapters of this Year Book. Apart from a summary of government expenditure on welfare services and short descriptions of certain interstate organizations providing welfare services, the chapter is devoted to a description in some detail of the services provided by the Commonwealth. For information on the many important welfare services provided by State and local governments, especially in the fields of child and Aboriginal welfare, reference should be made to the Year Books or Statistical Registers of the States and the annual reports of the State departments concerned. Information on pension and superannuation schemes provided for government and semi-government employees, mine workers, parliamentarians and employees of private business is included in the chapter Private Finance.

In addition, there are numerous services of this nature provided by charitable and other non-government institutions and organizations. There are institutions providing shelter and/or caring for needy, aged, infirm or handicapped persons, neglected children, destitute persons, wayward boys and girls, and the like. Many organizations, too, provide aid in kind (food, clothing, etc.), auxiliary medical and nursing services, and other assistance to relieve suffering and hardship. Considerable work is also done by such organizations in the rehabilitation or establishment in the community of various types of people, such as prisoners and migrants, and in the prevention and alleviation of cruelty and maltreatment of any sort. Comprehensive information regarding the activities of such organizations is not available.

Further information on subjects dealt with in this chapter is included in the annual bulletins *Commonwealth Finance* and *State, Territory and Local Government Authorities' Finance and Government Securities*. Current and summarized information on Commonwealth social services is contained in the *Quarterly Summary of Australian Statistics* and the *Monthly Review of Business Statistics*.

Expenditure on welfare services

This section deals with various government payments for the relief of the aged, indigent, infirm, widowed and unemployed, assistance to families, Aboriginal welfare, etc.

Commonwealth expenditure on welfare services

Information concerning the cost of administering each Commonwealth benefit separately is not compiled. However, the chapter Public Finance, and, in more detail, the annual bulletin *Commonwealth Finance*, present an analysis of Commonwealth expenditure by function and economic type, from which some estimates of administrative costs can be derived. Commonwealth expenditure on Aboriginal welfare is shown on page 504 and that on grants for the construction of homes for the aged and for accommodation for disabled persons on pages 518 and 519 respectively.

The National Welfare Fund

The National Welfare Fund was established by the *National Welfare Fund Act 1943* to finance a scheme of national welfare and has operated from 1 July 1943. At its commencement it was used to finance funeral benefits and maternity allowances, but other social and health benefits were made a charge on the fund from time to time and at present expenditure on all benefits except repatriation and a few minor social and health benefits is met from the fund. The fund is used only to finance the benefits themselves; it is not used to finance the cost of administering the benefits, or of capital works associated with the benefits.

The following table shows the income and expenditure of the fund for the years 1960-61 to 1964-65.

NATIONAL WELFARE FUND: RECEIPTS, EXPENDITURE AND BALANCES
1960-61 TO 1964-65
 (\$'000)

Year	Income			Expenditure	Balance in fund at end of year
	Contribution from Consolidated Revenue	Interest on investments	Total		
1960-61	661,209	4,034	665,243	661,209	406,033
1961-62	730,383	4,075	734,457	730,383	410,108
1962-63	758,589	4,118	762,706	758,589	414,225
1963-64	832,696	4,157	836,853	832,696	418,382
1964-65	890,366	4,199	894,564	890,366	422,581

The following table sets out expenditure from the fund during 1964-65.

COMMONWEALTH EXPENDITURE FROM NATIONAL WELFARE FUND
ON SOCIAL AND HEALTH SERVICES: STATES, TERRITORIES, ETC., 1964-65
 (\$'000)

Service	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T. (a)	A.C.T. (a)	Abr- oad	Total
Social Services—										
Age and Invalid Pen- sions	167,725	107,408	68,119	38,509	29,413	13,184	1,009	778	452	426,597
Child Endowment	59,897	48,018	26,153	16,563	13,406	6,306	1,005	1,430	52	172,830
Commonwealth Reha- bilitation Service	494	432	231	213	174	60	..	..	..	1,604
Funeral Benefits	349	224	129	76	59	26	..	..	2	866
Maternity Allowances	2,569	2,058	1,093	666	534	251	53	64	6	7,294
Unemployment Benefits	2,227	1,160	1,587	390	842	583	3	15	..	6,807
Sickness Benefits	2,681	1,645	948	475	512	201	12	23	..	6,498
Special Benefits(b)	349	546	171	66	46	52	2	2	..	1,235
Widows' Pensions	17,736	11,764	7,594	4,452	3,463	1,699	133	147	56	47,044
National Health Services—										
Hospital Benefits	24,252	13,267	8,994	5,160	4,987	1,811	110	210	..	58,791
Medical Benefits	14,237	8,961	3,749	4,274	3,056	1,000	..	..	..	35,277
Medical Benefits for Pensioners	3,771	2,413	1,299	898	660	256	..	23	..	9,320
Milk for School Children	2,876	2,066	1,211	757	637	380	72	60	..	8,059
Pharmaceutical Benefits	22,492	18,556	8,800	5,110	3,824	1,706	..	(c) 151	..	60,638
Pharmaceutical Benefits for Pensioners	9,094	5,165	3,270	1,987	1,470	578	..	..	..	21,564
Tuberculosis Cam- paign—										
Allowances	525	297	362	105	80	76	12	2	..	1,458
Maintenance and surveys(d)	3,650	2,700	2,036	638	742	361	..	17	..	10,146
Miscellaneous(e)	148	162	345	19	30	67	72	f 2,016	..	2,859
Rental Losses(g) . . . . .	..	..	130	..	..	..	..	..	..	130
Home Savings Grants(h)	4,054	3,536	1,457	1,126	699	364	6	108	..	11,349
Total	339,126	230,379	137,679	81,483	64,635	28,963	2,489	5,047	566	890,366

(a) Payments for some Health Services to residents of the Northern Territory and the Australian Capital Territory are included in the amounts shown for States. (b) Includes special benefits to migrants in reception and training centres. (c) Includes payments to the Royal Flying Doctor Service and Bush Nursing Centres. (d) Mainly payments to State Governments as a contribution towards the cost of surveys and the maintenance of institutions for the treatment of tuberculosis. (e) This item covers the cost of the Commonwealth Health Laboratory Services, subsidies to home nursing services, the cost of radio-active isotopes provided under the National Health Act, running expenses of the Blood Fractionation Plant, and hearing aids for school children. (f) Includes running expenses of the Blood Fractionation Plant at the Commonwealth Serum Laboratories, \$670,000, and part cost of the Commonwealth Health Laboratories, \$141,000; subsidies to home nursing services \$465,000; and purchase of poliomyelitis vaccine, \$740,000. (g) Contributions to States, under Commonwealth and State Housing Agreement 1945, for losses on rental housing. (h) Under the *Home Savings Grant Act 1964*.

Expenditure from the fund during each of the years 1960-61 to 1964-65, and the amount per head of population for each service during 1964-65, are shown in the following table.

**COMMONWEALTH EXPENDITURE FROM NATIONAL WELFARE FUND ON
SOCIAL AND HEALTH SERVICES: TOTAL, 1960-61 TO 1964-65**

Service	1960-61	1961-62	1962-63	1963-64	1964-65	
					Amount	Per head
	\$'000	\$'000	\$'000	\$'000	\$'000	\$
Social Services—						
Age and Invalid Pensions	315,852	360,489	375,507	399,880	426,597	37.92
Child Endowment(a)	148,605	132,755	135,421	168,758	172,830	15.36
Commonwealth Rehabilitation Service	1,387	1,447	1,395	1,489	1,604	0.14
Funeral Benefits	735	752	802	812	866	0.08
Maternity Allowances	7,796	7,817	7,563	7,457	7,294	0.65
Unemployment, Sickness and Special Benefits(b)	14,280	31,810	29,315	21,625	14,540	1.29
Widows' Pensions	26,937	30,189	31,353	41,569	47,044	4.18
National Health Services—						
Hospital Benefits	41,336	44,404	47,326	56,216	58,791	5.23
Medical Benefits	19,952	21,823	23,474	24,848	35,277	3.14
Medical Benefits for Pensioners	8,401	8,796	9,146	9,531	9,320	0.83
Milk for School Children	7,120	7,483	7,454	7,775	8,059	0.72
Pharmaceutical Benefits	41,086	52,185	57,044	58,237	60,638	5.39
Pharmaceutical Benefits for Pensioners	14,677	18,195	19,867	20,602	21,564	1.92
Tuberculosis Campaign—						
Allowances	1,893	1,746	1,607	1,593	1,458	0.13
Maintenance and surveys(d)	8,358	8,666	9,748	10,473	10,146	0.90
Miscellaneous(e)	2,091	1,696	1,529	1,785	2,859	0.25
Rental Losses(g)	705	130	37	45	130	0.01
Home Savings Grants(h) . . . . .	..	..	..	..	11,349	1.01
Total	661,209	730,383	758,589	832,696	890,366	79.15

(a) See footnote (b) to table on page 511.

For footnotes (b), (d), (e), (g) and (h), see table on page 502.

State expenditure on certain welfare services

The following table shows net expenditure from State Government funds on certain welfare services. The figures exclude expenditure on unemployment, bush fire, flood, etc., relief, Aboriginal welfare, and some other items which are excluded because information cannot be obtained for all States. Loan fund expenditure is excluded also. Because of differences in organization and accounting methods, the information shown for some classes is not on exactly the same basis for all States; it may also be incomplete because particulars of some activities are not separately recorded and are therefore excluded. The expenditure shown is 'net' in the sense that receipts for services rendered have been deducted from gross expenditure.

**NET EXPENDITURE BY STATE GOVERNMENTS ON CERTAIN WELFARE
SERVICES, 1964-65
(\$'000)**

Service	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
Relief of aged, indigent and infirm, child welfare, etc.	12,225	8,361	4,110	2,187	2,638	1,311	30,832
Miners' phthisis	73	65	..	..	62	..	200
Total	12,298	8,426	4,110	2,187	2,700	1,311	31,032

Aboriginal welfare

Expenditure out of Commonwealth and State Consolidated Revenue Funds specifically on Aboriginal welfare during the years 1960-61 to 1964-65 is shown in the following table. As with the table in the previous paragraph, the figures hereunder may be incomplete because particulars of some activities may not be available.

**ABORIGINAL WELFARE: EXPENDITURE FROM CONSOLIDATED REVENUE
FUNDS, STATES AND TERRITORIES, 1960-61 TO 1964-65**
(\$'000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	N.T.	A.C.T.	Aust.
1960-61 . .	501	50	1,540	856	1,525	1,930	11	6,413
1961-62 . .	562	100	1,607	1,048	2,601	2,024	9	7,950
1962-63 . .	689	120	1,610	1,025	3,318	2,595	11	9,368
1963-64 . .	605	120	1,705	1,212	1,550	3,045	11	8,248
1964-65 . .	712	130	1,764	1,270	1,880	3,201	6	8,965

Commonwealth social services

Under the provisions of section 51 of the Constitution, the Commonwealth Government is empowered to legislate on:

‘(xxiii) Invalid and old age pensions:

(xxiiiA) The provision of maternity allowances, widows’ pensions, child endowment, unemployment, pharmaceutical, sickness and hospital benefits, medical and dental services (but not so as to authorize any form of civil conscription), benefits to students and family allowances:’.

The latter paragraph was inserted in the Constitution after being accepted by the electors at a referendum on 28 September 1946. The enabling Act was assented to on 19 December 1946.

Before 1947, Commonwealth social service benefits were paid under various Acts. On 1 July 1947, with the passage of the *Social Services Consolidation Act* 1947, all Acts providing social service benefits were amalgamated. This Act eliminated certain anomalies and obsolete provisions, and changed the title ‘old-age pension’ to ‘age pension’. the word ‘Consolidation’ was dropped from the short title of the Act in 1954. The Act is at present styled the *Social Services Act* 1947-1965.

Social service benefits provided

The social service benefits provided by the Commonwealth Government, and the date on which each came into operation, are:

Age pension	1 July 1909
Child endowment	1 July 1941
Child endowment—student children	14 January 1964
Commonwealth Rehabilitation Service	10 December 1948
Funeral benefit	1 July 1943
‘Guardians’ allowances for widowers and other unmarried age and invalid pensioners with children in their care	14 October 1965
Invalid pension	15 December 1910
Maternity allowance	10 October 1912
Sickness benefit	1 July 1945
Special benefit	1 July 1945
Supplementary assistance (age, invalid and widow’s pensions)	15 October 1958
Unemployment benefit	1 July 1945
Widow’s pension	30 June 1942
Widow’s pension—children’s allowances	2 October 1956
Wives’ and children’s allowances for pensioners who are invalids	8 July 1943
Wives’ and children’s allowances for age pensioners	14 October 1965

Age and invalid pensions

Age pensions are payable to men, sixty-five years of age and over, and women, sixty years of age and over, who are British subjects and who have lived in Australia continuously for at least ten years, which need not be immediately prior to the date of claim for a pension. If a person has completed five years but not ten years continuous residence and has lived in Australia for periods which exceed a total of ten years, the period of continuous residence otherwise required is reduced by the total of his periods of residence in Australia in excess of ten years. Any periods of absence during which a person's home remains in Australia, and absences in certain other circumstances, are counted as residence, and any absence in an external Territory of the Commonwealth, while not counting as residence, does not interrupt continuity of residence in Australia. Residence in New Zealand or the United Kingdom may be treated as residence in Australia.

Invalid pensions are payable to persons, sixteen years of age and over, who have lived in Australia for a continuous period of five years (including certain absences) at any time, and who are permanently incapacitated for work to the extent of at least eighty-five per cent, or permanently blind. If the incapacity or blindness first occurred outside Australia, except during a temporary absence, a period of ten years continuous residence is necessary, but if a person has completed five years but not ten years continuous residence and has lived in Australia for periods which exceed a total of ten years, the period of continuous residence otherwise required is reduced by the total of his periods of residence in Australia in excess of ten years. Residence in New Zealand or the United Kingdom may be treated as residence in Australia. Certain absences do not affect eligibility. A pension is not payable to an alien.

Current rates of pension. The maximum standard rate was increased to \$624 per annum (\$12 a week) from 1 October 1964. This is payable to a single, widowed, or divorced pensioner, a married man whose wife receives a wife's allowance, or a married pensioner whose spouse is not receiving an age or invalid pension, an unemployment, sickness or special benefit, a tuberculosis allowance, or a service pension. The maximum married rate was also increased from 1 October 1964, and is \$1,144 per annum (\$22 a week) for a married couple, both pensioners, i.e., \$572 per annum (\$11 a week) each. For a married person whose spouse receives an unemployment, sickness or special benefit, a tuberculosis allowance, or a service pension, the maximum rate is also \$572 per annum (\$11 a week).

A wife's allowance may be granted, subject to the means test, to the wife of an invalid pensioner or of an age pensioner permanently incapacitated, blind, or (from 14 October 1965) who has the care of a child if she is not receiving an age or invalid pension, or a service pension under the *Repatriation Act 1920-1965* (see the chapter Repatriation). The maximum annual rate of a wife's allowance has been \$312 per annum (\$6 a week) since 3 October 1963. A child's allowance of \$78 per annum (\$1.50 a week), free of the means test, is payable for the first child under sixteen years, and the pension may also be increased by \$78 per annum (\$1.50 a week), subject to the means test, for each other child under 16 years. From 14 October 1965 a guardian's allowance of up to \$4 a week became payable to widowers and other unmarried age or invalid pensioners who have one or more children in their care.

Since 14 October 1965 eligibility for a child's allowance and the additional pension for children has been extended to include a child over sixteen years until he reaches twenty-one years, provided he is wholly or substantially dependent on the pensioner and is receiving full-time education at a school, college or university. Supplementary assistance of up to \$2 a week, subject to a means test is available to pensioners receiving the maximum standard rate pension if they pay rent or pay for board and lodging or for lodging. From 1958 to October 1965 the rate was \$1 a week and supplementary assistance was available only to maximum standard rate pensioners paying rent who were considered to depend entirely on the pension. At 30 June 1965, 544,063 age pensioners (eighty-seven per cent of all age pensioners) and 100,394 invalid pensioners (ninety-three per cent of all invalid pensioners) were receiving the maximum pension.

If the pensioner is an inmate of a benevolent home, the maximum payable to him is \$4.20 a week if he is eligible for the standard rate pension, or \$3.90 a week otherwise. The rest is paid to the home for his maintenance. The balance is not paid to the home if the pensioner is in an infirmary ward, as payments under the Commonwealth Hospital Benefits Scheme are made in that case. The maximum payable to a standard rate pensioner is increased if supplementary assistance is also payable.

A table showing the maximum rates of pension operating since 1 July 1909 at dates prior to 14 October 1965, when the current rates became operative, is included on page 608 of Year Book No. 51.

Means test. Age and invalid pensions (other than pensions paid to blind persons) and allowances paid to wives (but not a child's allowance of \$1.50 a week) are subject to a means test which applies to income and property. From March 1961 the means tests which previously applied separately on income and property were merged into one composite means test. The rate of

pension payable depends on the claimant's *means as assessed*. These consist of his annual rate of income plus a property component equal to \$2 for each complete \$20 of his net property above \$400. A person's *means as assessed* may consist entirely of income, entirely of the property component, or of various combinations of income and property component. The pension payable is calculated by deducting from the applicable maximum annual rate of pension plus, where applicable, guardian's and/or additional pension for children the amount by which *means as assessed* exceed \$364. Where the standard rate applies, no pension is payable where the value of property is \$10,280 or more (\$12,360 or more if qualified for a guardian's allowance). Where the married rate applies, no pension is payable where the value of property is \$9,760 or more. The wife's allowance is affected by income and property on the same basis as the pension, i.e., it is reduced by the amount of *means as assessed* over \$364. Supplementary assistance is reduced by the amount by which *means as assessed* exceed \$52.

Certain types of income are excepted. The main exceptions are: income from property; gifts or allowances from children, parents, brothers, or sisters; benefits (other than annuities) from friendly societies; child endowment or other payments for children; Commonwealth health benefits and amounts received from registered benefit organizations. A pensioner's income may also be reduced by up to \$52 per annum (\$1 a week) for each dependent child under sixteen years (twenty-one years if a full-time student).

Certain types of property are disregarded. They include the permanent home of the pensioner, his furniture and personal effects, the surrender value (up to \$1,500) of life insurance policies, the capital value of annuities or contingent interests, and the value of any reversionary interests.

For the purposes of the means test the income and property of a married person are considered to be half the total income and property of the husband and wife unless they are legally separated or in other special circumstances.

Age and invalid pensions in force. The following table shows the number of pensions in force at 30 June 1965 in each State and Territory.

AGE AND INVALID PENSIONS: STATES AND TERRITORIES, 30 JUNE 1965

Pensions in force	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Age(a)—									
Males	69,078	46,079	32,763	17,018	12,596	5,799	595	261	184,189
Females	174,715	116,029	67,291	41,290	30,110	13,093	658	725	443,911
Persons	243,793	162,108	100,054	58,308	42,706	18,892	1,253	986	628,100
Invalid—									
Males	22,933	14,767	9,767	4,603	4,911	2,055	244	116	59,396
Females	19,052	12,027	7,635	3,887	3,704	1,477	160	135	48,077
Persons	41,985	26,794	17,402	8,490	8,615	3,532	404	251	107,473

(a) During 1964–65, 6,206 invalid pensioners were transferred to their correct designation of age pensioners.

The number of age and invalid pension claims granted during 1964–65 are shown in the following table, classified according to the sex and marital status of the pensioner.

NEW PENSIONERS, BY SEX AND MARITAL STATUS: AUSTRALIA 1964–65

Conjugal condition	Age pensioners			Invalid pensioners			Total
	Males	Females	Persons	Males	Females	Persons	
Single	2,995	4,748	7,743	3,779	3,143	6,922	14,665
Married	14,249	17,490	31,739	6,565	2,660	9,225	40,964
Widowed	2,892	9,738	12,630	579	666	1,245	13,875
Divorced	318	757	1,075	350	364	714	1,789
Total	20,454	32,733	53,187	11,273	6,833	18,106	71,293

The average age of new age pensioners was sixty-nine years for men and sixty-six years for women. The ages of new invalid pensioners are shown in the following table.

NEW INVALID PENSIONERS, BY AGE GROUP: AUSTRALIA, 1964-65

	16-19 years	20-44 years	45-59 years	60-64 years	65 years and over	Total
Number . . .	1,686	3,312	8,533	4,109	466	18,106
Per cent . . .	9	18	47	23	3	100

Persons at or above the qualifying age for age pensions when granted invalid pensions are generally those with insufficient residence to qualify for age pension.

The following table gives details of age and invalid pensions for the years 1960-61 to 1964-65.

AGE AND INVALID PENSIONS: SUMMARY, AUSTRALIA, 1960-61 TO 1964-65

Year	Pensioners at 30 June				Total payments during year (b)	Average weekly pension as at 30 June		
	Age		Invalid	Total		Age (c)	Invalid (c)	Age and invalid combined (c)
	Number	Rate (a)						
			No.	No.	\$'000	\$	\$	\$
1960-61 . .	562,790	510	88,642	651,432	315,852	9.78	10.05	9.82
1961-62 . .	594,012	529	97,246	691,258	360,489	10.19	10.52	10.24
1962-63 . .	607,350	534	104,038	711,388	375,507	10.16	10.52	10.24
1963-64 . .	615,186	533	109,725	724,911	399,880	10.71	11.26	10.79
1964-65 . .	628,100	534	107,473	735,573	426,597	11.18	11.73	11.26

(a) Number of pensioners per 1,000 persons of pensionable age (males aged 65 years and over and females aged 60 years and over). (b) Includes allowances and supplementary assistance. (c) Includes supplementary assistance.

The sum paid in age and invalid pensions in 1964-65, including the amount paid to homes for the maintenance of pensioners and allowances to wives of invalid pensioners, represented an expenditure of \$37.92 per head of population, compared with \$36.20 in 1963-64.

Child endowment

A person who is resident in Australia and has the custody, care and control of one or more children under the age of sixteen years or of a student child over sixteen but under twenty-one years, or an approved institution of which children are inmates, is qualified to receive an endowment in respect of each such child. There are provisions to meet cases of families divided because of divorce, separation, unemployment or death of a parent. There is no means test.

Twelve months' residence in Australia is required if the claimant and the child were not born here, but this requirement is waived if the Department of Social Services is satisfied that they are likely to remain in Australia permanently. Where the child's father is not a British subject, endowment is payable if the child was born in Australia, if the mother is a British subject, or if the Department is satisfied that the child is likely to remain permanently in Australia. Under certain conditions, endowment may be paid to Australians who are temporarily absent overseas.

Rates of endowment. From 1 July 1941 the rate of endowment was 50c a week for each child under sixteen in excess of one in a family, and for each child under sixteen in an approved institution. The rate was increased to 75c a week in June 1945, and to \$1.00 a week in November 1948. From June 1950, 50c a week became payable for the first or only child in a family. From January 1964 the rate was increased to \$1.50 a week for the third and subsequent children under sixteen years in families and for each child in an institution, and that amount also became payable for full-time students between sixteen and twenty-one years. Full-time student children are those receiving full-time education at a school, college or university and who are not in employment or engaged in work on their own account.

Number of claims and endowed children, 30 June 1965. Children under sixteen years.
The number of families receiving child endowment at 30 June 1965 in respect of children under sixteen years was 1,582,801, an increase of 27,171 or 1.7 per cent during the year. The following table shows, for each State and Territory, the number of claims for child endowment in force and the number of endowed children under sixteen years at 30 June 1965.

CHILD ENDOWMENT: CLAIMS AND ENDOWED CHILDREN UNDER 16 YEARS, STATES, TERRITORIES, ETC., 30 JUNE 1965

YEAR, STATES, TERRITORIES, ETC.						
State, Territory, etc.	Family groups			Institutions		Total endowed children under 16 years
	Claims in force	Endowed children under 16 years		Number	Endowed child inmates under 16 years	
		Number	Average number per claim			
New South Wales .	579,744	1,258,370	2.17	133	6,713	1,265,083
Victoria	436,359	968,879	2.22	120	4,909	973,788
Queensland . . .	223,488	529,357	2.37	59	2,947	532,304
South Australia .	153,461	344,019	2.24	54	1,721	345,740
Western Australia .	117,528	275,978	2.35	64	3,664	279,642
Tasmania	53,309	126,526	2.37	21	521	127,047
Northern Territory .	6,303	14,440	2.29	39	5,780	20,220
Australian Capital Territory	12,372	27,947	2.26	..	..	27,947
Abroad	237	524	2.21	..	..	524
Total	1,582,801	3,546,040	2.24	490	26,255	3,572,295

The following table shows, as at 30 June 1965, the number of claims in force and the number of endowed children under sixteen years in family groups, classified according to the number of endowed children in the family group. The families included in the table are not necessarily made up entirely of the children of one marriage, but may include step-children, foster children, adopted children, and any other children under the custody, care and control of the claimant.

CHILD ENDOWMENT: ENDOWED CHILDREN UNDER 16 YEARS IN FAMILY GROUPS, TOTAL, 30 JUNE 1965

Number of endowed children under 16 years in family group	Claims in force	Endowed children under 16 years	Number of endowed children under 16 years in family group	Claims in force	Endowed children under 16 years
1	542,118	542,118	9	1,418	12,762
2	508,832	1,017,664	10	582	5,820
3	296,960	890,880	11	182	2,002
4	141,666	566,664	12	74	888
5	55,598	277,990	13	11	143
6	22,413	134,478	14 or more	5	78
7	8,983	62,881			
8	3,959	31,672	Total	1,582,801	3,546,040

Student children sixteen to twenty-one years. The number of families receiving endowment at 30 June 1965, in respect of student children sixteen to twenty-one years was 128,641. The following table shows, for each State and Territory, the number of claims for student endowment in force and the number of endowed student children at 30 June 1965.

**CHILD ENDOWMENT: CLAIMS AND ENDOWED STUDENT CHILDREN
STATES, TERRITORIES, ETC., 30 JUNE 1965**

State, Territory, etc.	Family groups			Institutions		Total endowed student children
	Claims in force	Endowed student children		Number	Endowed student child inmates	
		Number	Average number per claim			
New South Wales	40,773	43,508	1.07	12	41	43,549
Victoria	45,988	49,739	1.08	33	67	49,806
Queensland	15,312	16,457	1.07	14	22	16,479
South Australia	13,295	14,133	1.06	15	89	14,222
Western Australia	8,248	8,784	1.06	22	60	8,844
Tasmania	3,385	3,620	1.07	3	3	3,623
Northern Territory	259	275	1.06	5	33	308
Australian Capital Territory	1,370	1,478	1.08	..	..	1,478
Abroad	11	12	1.09	..	..	12
Total	128,641	138,006	1.07	104	315	138,321

The following table shows the number of student endowments in force in family groups of children at 30 June 1965.

**CHILD ENDOWMENT: ENDOWED STUDENT CHILDREN IN
FAMILY GROUPS, TOTAL, 30 JUNE 1965**

Number of endowed student children in family group	Claims in force	Endowed student children	Number of endowed student children in family group	Claims in force	Endowed student children
1 . . .	119,667	119,667	5 or more . . .	..	..
2 . . .	8,599	17,198			
3 . . .	359	1,077			
4 . . .	16	64	Total . . .	128,641	138,006

Liability and expenditure, 1964-65. Children under sixteen years. The following table shows the annual liability for child endowment at 30 June 1965 in respect of children under sixteen years and the actual expenditure thereon for the year 1964-65 in each State and Territory.

CHILD ENDOWMENT: CHILDREN UNDER 16 YEARS
LIABILITY AND EXPENDITURE, STATES, TERRITORIES, ETC., 1964-65
 (\$'000)

State, Territory, etc.	Annual liability at 30 June 1965			Total payments to endowees and institutions during year
	Family groups	Institutions	Total	
New South Wales	58,402	524	58,926	56,787
Victoria	45,418	383	45,800	44,334
Queensland	25,716	230	25,946	24,974
South Australia	16,206	134	16,340	15,553
Western Australia	13,292	286	13,578	12,798
Tasmania	6,154	41	6,195	6,047
Northern Territory	695	451	1,146	985
Australian Capital Territory	1,320	..	1,320	1,343
Abroad	24	..	24	50
Total	167,228	2,048	169,276	162,870

Student children sixteen to twenty-one years. The following table shows the annual liability for endowment at 30 June 1965 in respect of student children sixteen to twenty-one years, and the actual expenditure thereon for the year 1964-65 in each State and Territory.

CHILD ENDOWMENT: STUDENT CHILDREN, LIABILITY AND
EXPENDITURE, STATES, TERRITORIES, ETC., 1964-65
 (\$'000)

State, Territory, etc.	Annual liability at 30 June 1965			Total payments to endowees and institutions during year
	Family groups	Institutions	Total	
New South Wales	3,394	3	3,397	3,110
Victoria	3,880	5	3,885	3,684
Queensland	1,284	2	1,285	1,180
South Australia	1,102	7	1,109	1,010
Western Australia	685	5	690	608
Tasmania	282	..	282	260
Northern Territory	21	3	24	19
Australian Capital Territory	115	..	115	87
Abroad	1	..	1	2
Total	10,764	25	10,789	9,960

Child endowment, 1960-61 to 1964-65. The following table shows, for Australia, the number of claims, the number of all endowed children and the annual liability at 30 June for each of the years from 1961 to 1965 and the actual expenditure for the years 1960-61 to 1964-65.

CHILD ENDOWMENT: SUMMARY, AUSTRALIA, 1960-61 TO 1964-65

At 30 June—	Family group claims in force (a)	Institutions	Endowed children	Annual liability for endowment (b)	Total payments (b)(c)
				\$'000	\$'000
1960-61 . . .	1,501,180	465	3,340,302	134,665	(d) 148,605
1961-62 . . .	1,523,074	479	3,420,134	138,247	132,755
1962-63 . . .	1,535,388	497	3,457,620	139,876	135,421
1963-64 . . .	1,555,630	502	(e)3,631,047	(e) 175,766	(e)(f)168,758
1964-65 . . .	1,582,801	490	(e)3,710,616	(e) 180,065	(e) 172,830

(a) In respect of family groups containing endowed children under sixteen years of age. (b) A number of endowments are paid every twelve weeks. During two years out of every three there are four such payments but every third year there are five. Figures for annual liability, therefore, reflect trends in expenditure on child endowment more accurately than do figures for payments. (c) Year ended 30 June. (d) Endowment payable on 4 July 1961 to the credit of bank accounts and in cash at post offices was brought to account in 1960-61. (e) Includes student children and reflects higher rates for third and subsequent children under sixteen years in families. (f) Expenditure for this year includes five twelve-weekly payments.

Commonwealth Rehabilitation Service

The Commonwealth Rehabilitation Service has been set up to help persons who are unable to work because of physical handicap, or who have had to give up their employment because of sickness or injury. It helps disabled persons to reach their maximum physical fitness and to prepare for suitable employment. They are given suitable treatment and training, the cases selected being those in which the person's disability is remediable and there are reasonable prospects of his engaging in a suitable vocation within three years after the commencement of treatment or training.

The service is available to invalid and widow pensioners, persons receiving unemployment, sickness or special benefits, persons receiving tuberculosis allowances, and persons aged fourteen or fifteen who, without treatment and training, would be likely to qualify for an invalid pension on reaching the age of sixteen years. During treatment payment of pension or benefit continues. When vocational training begins, the pension or benefit is suspended and a rehabilitation allowance, together with a training allowance of \$3.00 a week, is paid instead. With an invalid pensioner, or a sickness, unemployment or special beneficiary, the rehabilitation allowance is equivalent to and calculated in the same manner as an invalid pension. In the case of a widow pensioner the rate is the same as that of the widow's pension.

Living-away-from-home allowances are paid where necessary. Fares and living expenses (including those of an attendant where required) incurred in connection with treatment, training or attendance for an interview or for medical examination may also be paid. A person receiving treatment or training may be provided, free of charge, with necessary artificial replacements, surgical aids and appliances. He may also be provided with books, equipment and tools of trade, costing up to \$80.00. If these are retained by him, he is required to pay the cost, but payments may be made by small instalments after he has commenced employment. If the treatment or vocational training does not result in the trainee's being able to engage in employment, he receives the pension or benefit to which he is entitled. Disabled persons who cannot qualify for the free service may pay for rehabilitation themselves, or they may be sponsored by government or private organizations. Rehabilitation allowances, training allowances, living-away-from-home allowances and other allowances are not payable in these cases. Books, tools, etc., are available on a repayment basis.

Numbers dealt with by the service. The numbers of persons receiving benefits who were examined, accepted, trained and placed in employment during the year 1964-65 are shown in the following table.

COMMONWEALTH REHABILITATION SERVICE: AUSTRALIA, 1964-65

Type	Examined	Accepted	Completed training	Placed in employment	
				After training (a)	Without training
Invalid pensioners	9,125	314	108	109	138
Widow pensioners	10	2	..	..	..
Unemployment and sickness beneficiaries	10,076	957	201	209	698
Special beneficiaries	4	1	..	1	1
Recipients of tuberculosis allowance .	285	34	25	26	23
Persons aged 14-15 years	138	53	22	17	26
Persons provided with rehabilitation on payment of the cost by another authority	89	86	3	11	64
Total	19,727	1,447	359	373	950

(a) Includes persons who had received training prior to 1 July 1964.

Of the 1,447 persons accepted during 1964-65, sixty-nine per cent were under forty years of age. The average number receiving rehabilitation training at the end of each month during the year was 993. Total cost of this service during 1964-65 was \$1,603,780.

Funeral benefits

A funeral benefit of up to \$20.00 is payable to the person who has paid, or is liable to pay, the cost of the funeral of an age or invalid pensioner or of a claimant who, but for his death, would have been granted an age or invalid pension, or of a person who at the time of his death was receiving, or was a claimant for, a tuberculosis allowance, if he would otherwise have been qualified to receive an age or invalid pension. Where the cost of the funeral has been met partly by payment from a contributory funeral benefit fund of an organization other than a friendly society, funeral benefit is payable to the extent of the amount (not above \$20.00) by which the cost of the funeral exceeded the amount paid from the fund. From 1 October 1965 the maximum amount payable was increased to \$40.00 where an age, invalid or widow pensioner is liable for the funeral expenses of a spouse, a child under sixteen years, or another age, invalid or widow pensioner.

The following table shows the number of funeral benefits which were granted in each State and Territory in the years 1960-61 to 1964-65.

FUNERAL BENEFITS GRANTED: STATES, TERRITORIES, ETC.
1960-61 TO 1964-65
 (Number)

State, Territory, etc.	1960-61	1961-62	1962-63	1963-64	1964-65
New South Wales	15,019	15,228	16,365	16,680	17,709
Victoria	9,200	9,702	10,861	10,594	11,280
Queensland	5,523	6,000	5,952	6,176	6,542
South Australia	3,192	3,103	3,595	3,618	3,801
Western Australia	2,654	2,605	2,589	2,749	2,981
Tasmania	1,100	1,174	1,183	1,242	1,325
Northern Territory	7	11	5	14	18
Australian Capital Territory	54	66	74	73	94
Abroad . . . . .	..	..	..	2	5
Total	36,749	37,889	40,624	41,148	43,755

Total cost of funeral benefits granted during 1964-65 was \$866,164.

Maternity allowances

Maternity allowances are paid to provide financial assistance towards the expenses associated with the birth of children and are additional to the benefits provided under the Commonwealth health scheme. They are not subject to a means test.

Subject to certain conditions, a maternity allowance is payable to a woman who gives birth to a child, either in Australia or on board a ship proceeding to Australia or from a port in Australia or an Australian Territory to another such port, and, on the date on which she lodges her claim, is residing in Australia or is in Australia and intends to remain permanently, provided she receives no benefit similar to a maternity allowance from the country from which she came. A woman who gives birth to a child during a temporary absence from Australia may also be eligible. An alien mother may receive the allowance if she or her husband resided in Australia for at least twelve months immediately prior to the birth of the child, or if she is likely to remain in Australia permanently.

Rates of allowance. The allowance is \$30.00 if the mother has no other children, \$32.00 if she has one or two children under sixteen, and \$35.00 if she has three or more other children under sixteen. The amount is increased by \$10.00 for each additional child born at a birth. An advance payment of \$20.00 may be made four weeks before the expected date of birth. The balance is payable immediately after the birth. Payment may be made in respect of the birth of a still-born child, or a child which lives for less than twelve hours if the child had developed for at least five and a half months.

Claims paid. The following table shows the number of claims paid in each State and Territory at the several rates of maternity allowances during the year 1964-65.

**MATERNITY ALLOWANCES: CLAIMS PAID AT EACH RATE
STATES AND TERRITORIES, ETC., 1964-65**
(Number)

State, Territory, etc.	Single births			Multiple births						Total claim paid
	\$30.00	\$32.00	\$35.00	Twins			Triplets			
				\$40.00	\$42.00	\$45.00	\$50.00	\$52.00	\$55.00	
New South Wales . .	27,662	36,778	15,271	281	384	206	2	5	3	80,592
Victoria . . .	21,408	29,563	12,748	190	325	183	2	4	1	64,424
Queensland . . .	10,634	14,757	8,194	96	169	110	..	1	2	33,963
South Australia . .	6,938	9,622	4,044	70	78	65	..	1	2	20,820
Western Australia . .	5,451	7,654	3,389	42	88	43	..	..	..	16,667
Tasmania . . .	2,459	3,506	1,791	19	26	17	..	2	1	7,821
Northern Territory . .	562	620	460	3	12	4	..	..	..	1,661
Australian Capital Territory . . .	688	931	379	3	10	3	..	1	..	2,015
Abroad . . .	63	83	24	1	3	2	..	..	..	176
Total . . .	75,865	103,514	46,300	705	1,095	633	4	14	9	228,139

The following table shows the number of maternity allowance claims paid in each State and Territory during the years 1960-61 to 1964-65.

**MATERNITY ALLOWANCES: CLAIMS PAID, STATES, TERRITORIES, ETC.
1960-61 TO 1964-65**
(Number)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Abroad	Total
1960-61 . . .	85,751	66,511	35,587	21,774	17,648	9,077	1,215	1,511	310	239,384
1961-62 . . .	87,659	65,847	36,339	21,328	17,366	8,942	1,398	1,662	300	240,841
1962-63 . . .	82,700	66,021	35,659	21,357	17,152	8,560	1,516	1,789	310	235,064
1963-64 . . .	83,580	64,438	34,966	21,096	16,988	8,437	1,663	2,013	270	233,451
1964-65 . . .	80,592	64,424	33,963	20,820	16,667	7,821	1,661	2,015	176	228,139

The following table gives details of the amounts paid in each State and Territory for the years 1960-61 to 1964-65.

MATERNITY ALLOWANCES: AMOUNTS PAID, STATES, TERRITORIES, ETC.
1960-61 TO 1964-65
(\$'000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Abroad	Total
1960-61 . . .	2,799	2,137	1,179	718	568	296	39	48	10	7,796
1961-62 . . .	2,884	2,114	1,178	690	559	289	45	48	10	7,817
1962-63 . . .	2,665	2,117	1,153	685	552	277	49	56	10	7,563
1963-64 . . .	2,649	2,065	1,128	675	546	272	54	60	9	7,457
1964-65 . . .	2,569	2,058	1,093	666	534	251	53	64	6	7,294

Unemployment, sickness and special benefits

Unemployment and sickness benefits are paid to males over sixteen and under sixty-five years of age, and females over sixteen and under sixty years of age, who are unemployed or who are temporarily incapacitated for work and thereby suffer loss of income. They must have been living in Australia during the preceding twelve months or be likely to remain permanently in Australia. A person receiving an age, invalid or widow's pension, or a service pension (as distinct from a war pension) under the *Repatriation Act* 1920-1965 or a tuberculosis allowance, is ineligible to receive a benefit.

To qualify for an unemployment benefit a person must establish that he is unemployed and that his unemployment is not due to his being a direct participant in a strike, that he is capable and willing to undertake suitable work, and that he has taken reasonable steps to obtain such work. Registration with the local Commonwealth District Employment Office is necessary. To qualify for a sickness benefit, a person must establish that he is temporarily incapacitated for work because of sickness or accident and that he has thereby suffered a loss of salary, wages or other income. A married woman is not eligible to receive a sickness benefit if it is reasonably possible for her husband to maintain her. Where her husband is able to maintain her only partially, a benefit may be paid at such rate as is considered reasonable in the circumstances. In exceptional cases a married woman may qualify for unemployment benefit in her own right.

A special benefit may be granted to a person not qualified for unemployment or sickness benefit who is not receiving an age, invalid or widow's pension or a service pension, and who, because of age, physical or mental disability or domestic circumstances, or for any other reason, is unable to earn a sufficient livelihood for himself and his dependants. Recipients of special benefits include, among others, persons caring for invalid parents, also deserted wives and persons ineligible for age, invalid or widows' pensions because of lack of residence or nationality qualifications.

Special benefits are also paid to migrants who are in reception centres and are awaiting their first placement in employment in Australia. During this time they receive a short instruction in English and in Australian conditions to facilitate their assimilation into the community and employment.

Rates of benefit. The maximum weekly rates of benefit payable and permissible income in respect of benefit periods which commenced on or after 1 March 1962 are as follows.

	Maximum weekly rate	Permissible weekly income
	\$	\$
Unmarried person under 18 years of age . . .	3.50	2.00
Unmarried person 18 to 20 years of age . . .	4.75	2.00
All others	8.25	4.00

An additional benefit of \$6 a week may be paid for a dependent spouse and \$1.50 a week for each dependent child under sixteen years of age if resident in Australia. Additional benefit, at the same rate as that for a dependent spouse, may be paid where a woman is keeping house for a claimant who has one or more children under sixteen years of age in his care. It may be granted only if no such benefit is payable for his wife, and the housekeeper is substantially dependent on him but not employed by him.

The weekly rate of benefit is reduced by the amount by which a beneficiary's other income exceeds the amount shown in the relevant line of the final column in the preceding table. For unemployment benefit purposes the income of the spouse is also taken into account unless the claimant and his spouse are permanently separated. For sickness benefit purposes the income

from an approved friendly society or other similar approved body in respect of the incapacity for which sickness benefit is payable is disregarded. 'Income' does not include child endowment or other payments for children, Commonwealth hospital and pharmaceutical benefits, a tuberculosis allowance, or an amount paid in reimbursement of medical, dental or similar expenses. There is no means test on property.

The amount of compensation, damages or similar payment, or war pension, if paid in respect of the same incapacity as that for which sickness benefit is claimed, is deducted from the sickness benefit. If not paid in respect of the same incapacity, compensation is regarded as income and war pension is ignored.

There is a waiting period of seven days for which unemployment or sickness benefit is not payable.

Benefits. The following table shows the number admitted to unemployment, sickness and special benefit during 1964-65, the number of persons on benefit at 30 June 1965, and the amount paid for each benefit during 1964-65.

**UNEMPLOYMENT, SICKNESS AND SPECIAL BENEFITS
STATES AND TERRITORIES, 1964-65**

—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Number admitted to benefit—									
Unemployment—									
Males . . .	16,084	6,809	17,488	3,220	5,839	3,241	57	116	52,854
Females . .	12,237	4,585	8,822	3,491	4,336	2,014	76	97	35,658
Persons . .	28,321	11,394	26,310	6,711	10,175	5,255	133	213	88,512
Sickness—									
Males . . .	19,395	11,072	9,217	4,230	4,506	1,630	108	165	50,323
Females . .	7,258	4,610	2,923	1,455	1,356	608	38	66	18,314
Persons . .	26,653	15,682	12,140	5,685	5,862	2,238	146	231	68,637
Special—									
Ordinary—									
Males . .	497	430	410	66	29	45	3	5	1,485
Females .	469	1,599	262	58	55	77	..	4	2,524
Persons .	966	2,029	672	124	84	122	3	9	4,009
Migrants—									
Persons .	442	2,090	..	178	..	..	..	..	2,710
Total—									
Males(a) .	35,976	18,311	27,115	7,516	10,374	4,916	168	286	104,662
Females(a) .	19,964	10,794	12,007	5,004	5,747	2,699	114	167	56,496
Persons(b) .	56,382	31,195	39,122	12,698	16,121	7,615	282	453	163,868
Persons on benefit at end of year—									
Unemployment—									
Males . . .	2,356	1,155	1,966	247	503	517	4	5	6,753
Females . .	2,311	805	1,273	456	634	409	2	13	5,903
Persons . .	4,667	1,960	3,239	703	1,137	926	6	18	12,656
Sickness—									
Males . . .	2,878	1,763	1,038	477	581	186	15	33	6,971
Females . .	1,266	914	446	254	236	86	6	8	3,216
Persons . .	4,144	2,677	1,484	731	817	272	21	41	10,187
Special—									
Ordinary—									
Males . .	206	140	93	38	21	24	1	..	523
Females .	469	920	255	80	78	96	..	2	1,900
Persons .	675	1,060	348	118	99	120	1	2	2,423
Migrants—									
Persons .	13	77	..	..	..	..	..	..	90
Total—									
Males(a) .	5,440	3,058	3,097	762	1,105	727	20	38	14,247
Females(a) .	4,046	2,639	1,974	790	948	591	8	23	11,019
Persons(b) .	9,499	5,774	5,071	1,552	2,053	1,318	28	61	25,356
Benefits paid—									
Unemployment . \$'000	2,227	1,160	1,587	390	842	583	3	15	6,807
Sickness . \$'000	2,681	1,645	948	475	512	201	12	23	6,498
Special(b) . \$'000	349	546	171	66	46	52	2	2	1,235
Total benefits paid(b) . \$'000	5,257	3,351	2,706	931	1,400	836	17	40	14,540

(a) Excludes migrants in reception centres.

(b) Includes migrants in reception centres.

The following table shows the number of persons who were admitted to benefit, the average number receiving benefit at the end of each week and the amount paid for each benefit during each of the years 1960-61 to 1964-65.

UNEMPLOYMENT, SICKNESS AND SPECIAL BENEFITS: SUMMARY
AUSTRALIA, 1960-61 TO 1964-65

Year	Number admitted to benefit			Average number of persons on benefit at end of each week			Amount paid in benefits		
	Un-employment	Sick-ness	Special (a)	Un-employment	Sick-ness	Special (a)	Un-employment	Sick-ness	Special (b)
1960-61	161,113	58,184	14,001	21,569	8,513	2,829	\$'000 8,937	\$'000 4,303	\$'000 1,040
1961-62	278,936	63,586	7,466	52,950	9,286	2,867	25,274	5,330	1,206
1962-63	200,982	66,402	8,227	39,706	10,514	2,647	21,301	6,750	1,263
1963-64	139,500	69,503	7,602	25,925	10,994	2,684	13,458	6,901	1,266
1964-65	88,512	68,637	6,719	13,742	10,457	2,567	6,807	6,498	1,235

(a) Includes migrants in reception and training centres.

(b) Includes payments to migrants in reception and training centres.

Widows' pensions

Rates and conditions. Widows' pensions are payable according to the following classes. The rates shown have been in operation since October 1964.

Class 'A'. A widow who has the custody, care and control of one or more children under the age of sixteen years—\$832 per annum (\$16 a week). This includes the standard rate pension of \$624 per annum (\$12 a week) and a mother's allowance of \$208 per annum (\$4 a week). In addition, a flat rate allowance of \$78 per annum (\$1.50 a week) for one child and, subject to the means test, extra pension of \$78 per annum (\$1.50 a week) for each other child under sixteen years are payable. Payment may be made for a child over sixteen years until he reaches twenty-one years, if he is wholly or substantially dependent on the widow and is receiving full-time education at a school, college, or university.

Class 'B'. A widow who has no children under sixteen years of age or eligible full-time student children in her custody, care and control, and who is not less than fifty years of age or who, after having attained the age of forty-five years, ceased to receive a Class 'A' widows' pension because she no longer had the custody, care and control of a child—\$559 per annum (\$10.75 a week).

Class 'C'. A widow who is under fifty years of age and has no children under the age of sixteen years, or eligible full-time student children, in her custody, care and control, but is in necessitous circumstances within the twenty-six weeks after the death of her husband—\$10.75 a week for not more than twenty-six weeks after the death of her husband. If the widow is pregnant this period may be extended until the child's birth. She may then become eligible for a Class 'A' widow's pension.

Widow pensioners may receive supplementary assistance of up to \$104 per annum (\$2 a week), subject to a means test, if they pay rent or pay for board and lodging or for lodging. From October 1958 to October 1965 the rate was \$1 a week and was payable to widows, otherwise qualified, who were considered to be entirely dependent on the pension.

For classes 'A' and 'B' the term 'widow' includes a wife who has been deserted by her husband without just cause for a period of at least six months, a divorcee, a woman whose husband has been imprisoned for at least six months, and a woman whose husband is in a mental hospital. Certain dependent females also may qualify for 'A', 'B' or 'C' Class pensions.

The residence qualification is five years' continuous residence in Australia immediately prior to the date of lodgment of the claim, but this period may be reduced to one year if the widow and her husband were living permanently in Australia when he died. Certain absences are ignored.

A widow's pension is not payable to an alien, a woman receiving an age or invalid pension, a tuberculosis allowance, or a war widow's pension, or to a deserted wife or divorcee who has not taken reasonable action to obtain maintenance from her husband or former husband.

Means test. Widows' pensions are subject to a means test on income and property. The pension payable depends on the claimant's means as assessed. These consist of her annual rate of income together with a property component equal to \$2 for every complete \$20 by which the value of her property is in excess of a stipulated sum. In the case of a Class 'B' widow, \$400 of property is exempt. A Class 'A' widow has a basic exemption of \$2,000 when the value of her property exceeds \$4,500, but no property component is calculated where she has property of no more than \$4,500 in value. A Class 'A' pension is not payable where a widow has property valued at \$13,960 or more; no Class 'B' pension is payable where property is \$9,640 or more.

There is no specific means test for the Class 'C' pension, which is paid only where it is evident that a widow has insufficient means of support. The types of income and property disregarded for means test purposes are the same as for age and invalid pensions. Supplementary assistance is reduced by the amount by which *means as assessed* exceed \$52.

Pensions. The following table shows details of widows' pensions paid in each State and Territory in the year 1964-65.

WIDOWS' PENSIONS: STATES, TERRITORIES, ETC., 1964-65

State, Territory, etc.	Number admitted— all classes (a)	Pensions current at 30 June				Average weekly pension at 30 June (b)	Amount paid in pensions (b) (c)
		Class 'A'	Class 'B'	Class 'C'	All classes		
						\$	\$'000
New South Wales . . .	5,439	10,951	13,870	40	24,861	13.95	17,736
Victoria . . .	3,555	7,311	9,094	21	16,426	14.09	11,764
Queensland . . .	2,139	4,991	5,268	21	10,280	14.40	7,594
South Australia . . .	1,415	2,868	3,363	10	6,241	14.09	4,452
Western Australia . . .	1,098	2,221	2,692	13	4,926	13.78	3,463
Tasmania . . .	515	1,159	1,084	5	2,248	14.63	1,699
Northern Territory . . .	44	90	91	1	182	14.99	133
Australian Capital Territory . . .	38	122	112	..	234	15.02	147
Abroad . . .	..	(d)	(d)	(d)	(d)	..	56
Total . . .	14,243	29,713	35,574	111	65,398	14.09	47,044

(a) Excludes transfers from one class to another. (b) Includes supplementary assistance and allowances. (c) Includes payments to benevolent homes for maintenance of pensioners. (d) Included in the figures for the State or Territory in which the pensioner is normally domiciled.

The following table shows the total number admitted and details of all widows' pensions paid for each of the years ended 30 June 1961 to 1965.

WIDOWS' PENSIONS: SUMMARY, AUSTRALIA, 1960-61 TO 1964-65

Year	Number admitted— all classes (a)	Pensions current at 30 June				Average weekly pension at 30 June (b)	Amount paid in pensions (b) (c)
		Class 'A'	Class 'B'	Class 'C'	All classes		
						\$	\$'000
1960-61 . . .	12,436	24,491	30,830	115	55,436	9.81	26,937
1961-62 . . .	12,960	24,584	32,157	95	56,836	10.44	30,189
1962-63 . . .	12,537	25,261	33,112	104	58,477	10.45	31,353
1963-64 . . .	14,207	27,371	34,659	94	62,124	13.57	41,569
1964-65 . . .	14,243	29,713	35,574	111	65,398	14.09	47,044

(a) Excludes transfers from one class to another. (b) Includes supplementary assistance and allowances. (c) Includes payments to benevolent homes for maintenance of pensioners.

Reciprocal social services agreements with other countries

New Zealand. An agreement between the Governments of Australia and New Zealand for reciprocity in social services came into operation on 3 September 1943 and was amended from 1 July 1949. The reciprocal arrangements cover age and invalid pensions, widows' pensions, child endowment, and unemployment and sickness benefits, and apply to both permanent and temporary changes of residence. Residence in one country may be treated as residence in the other country in relation to entitlement to benefits in which a residential qualification applies. Persons from one country taking up permanent residence in the other country become eligible for any of the specified benefits of the new country under the same conditions (with one or two exceptions) as apply to citizens of that country. Persons in receipt of any of the specified benefits in one country may continue to receive those benefits while temporarily absent in the other country.

Britain. A reciprocal agreement on social services between Britain and Australia came into operation on 7 January 1954. Amendments became effective from 1 April 1958 and 1 October 1962. Under the current agreement residence in one country may be treated as residence in the other country as the basis for entitlement to benefits in which a residential qualification applies. Australians going to Britain for permanent residence are treated in Britain as if they had been insured under the National Insurance Scheme while in Australia, so that they can qualify for various National Insurance benefits. There is also provision for the safeguard of social service rights for persons going from one country to the other for temporary residence.

Commonwealth assistance to aged persons homes and homes for disabled persons employed in sheltered workshops

The Aged Persons Homes Act 1954-1957. This Act is designed to encourage the provision of homes in which aged persons may reside in conditions approaching normal domestic life.

To be eligible for assistance under the Act an organization must be:

- (a) carried on otherwise than for purposes of profit or gain to the individual members; and
- (b) a religious organization, an organization the principal objects or purposes of which are charitable or benevolent, an organization of former members of the defence forces established in every State or a State branch of such an organization, or an organization approved by the Governor-General for the purposes of the Act.

An organization conducted or controlled by, or by persons appointed by, the Government of the Commonwealth or of a State or a local governing body established under the law of a State, is not eligible for assistance under the Act.

The Director-General of Social Services may make a grant of money to an organization as assistance towards meeting the cost of the construction or purchase of a home including land, to be used permanently for the accommodation of aged persons. The grant is made on a basis of \$2 for each \$1 raised by the organization (\$1 for each \$1 from 1954 to 1957), not counting money which the organization received from a governmental body or borrowed. Before a grant is made the Director-General must be satisfied that the sum of the money expended and the money at present available for expenditure by the organization towards the capital cost of the home, together with the amount of the grant will be not less than the capital cost of the home.

The following table gives information regarding grants approved during 1964-65.

AGED PERSONS HOMES: GRANTS APPROVED, AMOUNTS GRANTED, AND BEDS PROVIDED, STATES AND TERRITORIES, 1964-65

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Total
Grants approved . no.	46	26	17	44	12	6	1	1	153
Amounts granted . \$'000	1,953	969	793	1,597	785	200	13	13	6,323
Beds provided . no.	630	318	272	536	255	62	6	4	2,083

The following table gives information regarding grants approved for each of the years 1960-61 to 1964-65.

**AGED PERSONS HOMES: GRANTS APPROVED, AMOUNTS GRANTED, AND BEDS PROVIDED, AUSTRALIA
1960-61 TO 1964-65**

Year	Grants approved	Amounts granted	Beds provided
	No.	\$'000	No.
1960-61 . . .	131	5,584	2,089
1961-62 . . .	130	6,105	2,260
1962-63 . . .	155	8,366	2,939
1963-64 . . .	134	6,934	2,466
1964-65 . . .	153	6,323	2,083

Since the commencement of the Act in December 1954, 1,186 grants amounting to \$48,909,000 have been approved, and accommodation has been provided for 20,420 aged persons.

The Disabled Persons Accommodation Act 1963. This Act came into operation on 25 November 1963, and provides that grants may be made to eligible organizations towards the capital cost of approved buildings which will provide residential accommodation for disabled persons engaged, or likely to be engaged, in paid employment in a sheltered workshop. The Act covers both the erection of buildings to be used for accommodation and the purchase of existing premises for conversion into accommodation. In both cases the cost of the necessary land may be included. Eligibility of organizations for grants is on the same basis as for the Aged Persons Homes Act. For the purposes of the Act, a disabled person is a person who is qualified by age (sixteen years or over) and on medical grounds for an invalid pension under the Social Services Act. A sheltered workshop is a factory or workshop, or part thereof, in which all or a substantial number of employees are disabled persons who receive payment for their work.

No applications for specific projects were lodged during 1964-65; consequently no grants were made.

Selected non-government organizations

National Safety Council of Australia

The National Safety Council of Australia was founded in Victoria in 1927. In 1959 it was reorganized, and new Articles of Association were adopted in 1961, placing it on a more truly federal basis and reflecting the expanded character of the Council in the 38 years since its formation. The objects of the Council are to devise and encourage the adoption of safety measures of all kinds, to promote discussion of all matters relating to safety measures, to conduct an educational campaign among the people of Australia to stimulate the adoption and observance of safety measures, and to consider, initiate and support improvements in the laws of the Commonwealth of Australia, the States and local governing bodies calculated to prevent accidents.

The Council is now registered in Canberra, with Divisions established in all States. It is managed by a Federal Council responsible for those objectives which are of a national character. Each State Division controls its own affairs which are of State or local character.

Lifesaving

There are two lifesaving organizations in Australia, the Royal Life Saving Society—Australia and the Surf Life Saving Association of Australia. The objects of these organizations are the prevention of death from drowning and other forms of asphyxiation; the education of the general public in methods of life saving and resuscitation of the apparently drowned or asphyxiated; technical education in water safety; the encouragement of swimming and life saving in schools and other organizations; the encouragement of all aspects of swimming and aquatics which would assist in saving lives; and the initiation of research within the field of water safety and lifesaving.

The Royal Life Saving Society operates at lakes, rivers, bay and harbour beaches, and gives instruction to school pupils and members of other bodies throughout Australia except on surf beaches. The Surf Life Saving Association of Australia controls all life saving activities on the ocean beaches throughout Australia. In all, over 220 clubs are affiliated, comprising a membership of over 22,000. Volunteer patrols operate every week-end, and in recent years over 5,000 rescues have been recorded during each surfing season. The total number of recorded rescues during the past fifty-eight years is 145,115.

Royal Humane Society

The Royal Humane Society of Australasia has as its main object the granting of awards to all who with bravery, skill and perseverance risk their own lives in saving or attempting to save those of their fellow creatures. The classes of awards are (a) Gold Medal, (b) Silver Medal, (c) Bronze Medal, and (d) Certificate of Merit. The Clarke Medal is awarded for the outstanding case of the year, and the Rupert Wilks Trophy is awarded for the most outstanding bravery by a child under thirteen years of age.

The Order of St. John

The Priory in Australia of the Most Venerable Order of the Hospital of St. John of Jerusalem is the governing body of the various activities of the Order, which comprises the St. John Ambulance Association, the St. John Ambulance Brigade and the Hospitaliers' Clubs in all States and Commonwealth Territories. In October 1963, at Canberra, the Priory for the first time held its meetings in Australia under the chairmanship of the Prior, His Excellency the Governor-General.

Members of the St. John Ambulance Association teach first aid, home nursing, hygiene and child welfare, and members of the St. John Ambulance Brigade provide first aid at public functions. The Hospitaliers' Clubs in each State undertake the collection of funds for the St. John Ophthalmic Hospital in Jerusalem and other duties which tend to bring together all persons interested in the work of the order. The Order of St. John maintains ambulance transport services in some States, acts as an auxiliary to such services in other States, and provides technical reserves for the medical services of the Crown.

CHAPTER 16

PUBLIC JUSTICE

Statistics of public justice are influenced by a number of factors which affect comparability from State to State and from year to year, e.g.:

- (a) Differences in the jurisdiction of courts;
- (b) Changes in the law in particular States and differences in the laws between States;
- (c) Differences in the methods of compiling the figures (e.g. in respect of persons convicted for more than one offence);
- (d) The attitude to laws such as those connected with liquor, vagrancy, gaming, and traffic offences;
- (e) The strength and distribution of the police force;
- (f) The proportion of various types of crimes reported and solved.

The Australian legal system

Development of the system

The two major factors in the development of the Australian legal system have been its British origin and the Commonwealth Constitution of 1900. When the various parts of Australia were first settled by British colonists, the common law and statutes of England were brought with them by the settlers. When local law-making bodies were established, the law so brought in was gradually modified and augmented by local legislation, but the Imperial Parliament in London also continued to legislate (to a lesser and lesser extent) in respect of Australia. The Commonwealth Constitution of 1900, which is itself an Imperial Act, limited the legislative power of State Parliaments in some respects and created a federal legislature. Since the *Statute of Westminster Adoption Act* 1942, the Imperial Parliament can legislate for Australia only at Australia's request. The sources of Australian law of today are, therefore, found in Commonwealth and State legislation, in some Imperial legislation and in the common law. No significant attempt has been made at codification of the law, but three of the States (Queensland, Western Australia and Tasmania) have Criminal Codes. However, separate consolidations of the statutes of the Commonwealth and of all States except Western Australia (which has adopted a system of reprinting of individual statutes at intervals) have been brought out from time to time.

There are few constitutional or other legislative guarantees of individual rights and liberties in Australia. These rights are nevertheless protected, because a basic feature of the Australian system is the 'rule of law': no act, official or unofficial, however bona fide and apparently reasonable, which infringes the liberty or rights of an individual is justifiable unless it is authorized by law, and for any such unlawful act, by whatever authority commanded, the official or other person is personally liable in an action in the ordinary courts. In the case of subordinate legislation, and even in the case of Commonwealth or State Acts, the validity of the law itself may be challenged in the courts. The remedy for the protection of the personal liberty of the individual is the writ of habeas corpus, which requires the person named therein to be produced in the court.

Australian law adheres to the principle that judicial control must in general be exercised by ordinary courts. There is no integrated system of administrative tribunals, but there is a great variety of such tribunals of various descriptions. The ordinary courts exercise supervision over administrative tribunals either by way of statutory appeal or by the use of prerogative writs of mandamus, prohibition, or *certiorari*, by which the administrative tribunals can be enjoined to perform a duty or to abstain from excess of jurisdiction, or can have their decisions set aside.

Independence of the judiciary is an essential part of the Australian legal system. Security of tenure of superior court judges is guaranteed, mostly by the Constitutions of the Commonwealth and the States, and they can be removed from office only by resolution of both Houses of Parliament of the Commonwealth or the States, as the case may be, for proven misbehaviour or incapacity. Their independence is further secured by relatively high salaries which, in the case of High Court judges, cannot be reduced during their tenure of office, and liberal (mostly non-contributory) pensions for the judges or their widows.

Civil judgments given in the courts of any part of Australia can be enforced in any other part of Australia under the *Service and Execution of Process Act 1901-1963*. Since 1 January 1964 this applies also to fines imposed by courts of summary jurisdiction.

State and Territory courts

Civil jurisdiction. Lower civil courts (i.e. Magistrates' Courts, Courts of Petty Sessions, Local Courts, Small Debts Courts, Courts of Request and Courts of General Sessions) are usually constituted or presided over by a stipendiary or special magistrate or a commissioner. In some limited instances justices of the peace may exercise the jurisdiction of the court. Local Courts are sometimes constituted by a Judge. The powers of the magistrates in the various States and Territories are set out on pages 522-3. In most cases, unless the amount involved is very small, appeal may be made to a higher court against a magistrate's decision. In any case the Supreme Court has a supervisory power, by means of prerogative writs, to examine whether a lower court has properly exercised its jurisdiction. In the higher courts (i.e. District Courts, County Courts, and the Supreme Courts) actions are usually tried by a single judge, sitting with or without a jury, from whose judgment appeal lies to the bench of the Supreme Court. In certain cases the appeal can be carried to the High Court of Australia. Appeals to the Privy Council are referred to on page 522.

Criminal jurisdiction. Criminal courts are of two kinds, namely, courts of summary jurisdiction and higher courts. Courts of summary jurisdiction, usually called Courts of Petty Sessions, may deal summarily with minor offences; higher courts, known as Courts of Sessions, Quarter Sessions or General Sessions (not to be confused with the lower court of civil jurisdiction of that name) and the Supreme Court, hear indictable offences. A court of summary jurisdiction consists of a stipendiary or police magistrate, or two or more justices of the peace; a higher court consists of a judge or chairman, sitting with a jury. The jury finds as to the facts of the case, and the judge determines the applicable law and, within the limits of the law, the punishment of the convicted person.

In the case of other than minor offences a preliminary hearing is held before a stipendiary magistrate or justice of the peace for the purpose of determining whether a *prima facie* case has been made out. If the magistrate or justice of the peace finds that there is a case to answer, the person charged is committed for trial at a higher court. A magistrate or justice of the peace has power to release on bail. There is an appeal to a higher court from the decision of a court of summary jurisdiction hearing a minor offence, and an appeal from a higher court to the full bench of the Supreme Court, or Court of Criminal Appeal. A further appeal may, with leave, be brought to the High Court of Australia.

Federal courts

The judicial power of the Commonwealth is vested in the High Court of Australia (the Federal Supreme Court), in the Federal courts created by Parliament (the Federal Court of Bankruptcy and the Commonwealth Industrial Court), and in the State courts invested by Parliament with Federal jurisdiction, both civil and criminal. The nature and extent of the judicial power of the Commonwealth are set out in Chapter III. (§§ 71-80) of the Commonwealth Constitution (see pages 15-16 of this Year Book). Particulars concerning the Federal Court of Bankruptcy are given on pages 539-41 of this chapter, and information regarding the Commonwealth Industrial Court, which was established under the *Conciliation and Arbitration Act 1904-1965*, is included in the chapter Labour, Wages and Prices (page 345).

High Court of Australia

The High Court of Australia consists of a Chief Justice and six other Justices. Its principal seat is in Melbourne, but sittings are held in every State capital as occasion requires. The High Court has both original and appellate jurisdiction. Its original jurisdiction is usually exercised by a single Justice, appellate jurisdiction by at least three Justices.

The Constitution itself confers original jurisdiction on the High Court in all matters (i) arising under a treaty, (ii) affecting consuls or other representatives of other countries, (iii) in which the Commonwealth, or a person suing or being sued on behalf of the Commonwealth, is a party, (iv) between States, or between residents of different States, or between a State and a resident of another State, (v) in which a writ of mandamus or prohibition or an injunction is sought against an officer of the Commonwealth. In addition, Parliament may, under the Constitution, confer additional original jurisdiction on the High Court in certain classes of matters, and has in fact conferred original jurisdiction on the High Court in all matters arising under the Constitution or involving its interpretation and in trials of indictable offences against the laws of the Commonwealth. In matters (i) and (v) and in suits between the Commonwealth and a State or between States the jurisdiction of the High Court is exclusive of that of the State Courts, and in matters (other than trials of indictable offences) involving any question as to the limits *inter se* of the constitutional powers of the Commonwealth and those of the States the jurisdiction of the High Court is exclusive of that of the Supreme Courts of the States.

Under the Constitution the High Court has jurisdiction, with such exceptions and subject to such regulations as the Parliament permits, to hear and determine appeals from all judgments, decrees, orders and sentences of (i) any Justice or Justices exercising the original jurisdiction of the High Court, (ii) any other Federal Court or court exercising Federal jurisdiction and (iii) from the Supreme Court or other court of any State from which appeal lay to Privy Council at the establishment of the Commonwealth. In respect of (iii) the Parliament has prescribed that, generally, appeal can be brought only by special leave of the High Court. However, in the case of judgments affecting the status of any person under the laws relating to aliens, marriage, bankruptcy or insolvency, or in respect of any sum or matter at issue, or involving any claim, demand, or question, to or regarding any property or civil right, amounting to or of the value of \$3,000, appeal may be brought as of right from final judgments, and by leave of the High Court or the Supreme Court from interlocutory judgments.

By Acts of Parliament and by subordinate legislation the High Court has also been given appellate jurisdiction in respect of the courts of the Territories under the control of the Commonwealth. Provision is also made in various enactments for appeal to the High Court on points of law from administrative determinations, such as decisions of the Commissioner of Taxation, Taxation Boards of Review, the Commissioner of Patents, or the Registrar of Trade Marks. Such proceedings, although called appeals, are in reality proceedings in the original jurisdiction of the High Court.

Transactions of the High Court are shown on page 532.

Appeal to the Privy Council

There is an appeal, by special leave of the Privy Council, from the High Court to the Privy Council. In certain important types of constitutional disputes, involving questions of the powers of the Commonwealth *vis-à-vis* the States, a certificate of the High Court in effect granting leave to appeal is necessary. There is also an appeal from the State Supreme Courts direct to the Privy Council.

Lower (magistrates') courts

Powers of magistrates

New South Wales. The powers of the magistrates with regard to offences punishable summarily depend in each case on the statute which creates the offence and gives them jurisdiction. A magistrate may, with the consent of the accused, deal summarily with certain indictable offences under the Commonwealth Crimes Act and offences involving \$500 or less under the State Crimes Act; offences under the Commonwealth Act and certain offences under the State Act may be disposed of summarily without such consent if the amount involved does not exceed \$100. Except in the case of a very few statutes, and excluding cumulative sentences, the power of sentence is limited to twelve months. Imprisonment in default of fine is regulated by a scale limiting the maximum period according to the sum ordered to be paid, but in no case exceeding twelve months. Actions for debt and damage within certain limits also come within magisterial jurisdiction. In cases of liquidated debts, and damages whether liquidated or unliquidated, the amount is limited to \$300 before a court constituted by a stipendiary magistrate. Where the amount claimed exceeds \$100 the Court must transfer the action to the District Court when the defendant gives notice that he objects to the action being heard and determined by a Court of Petty Sessions. Magistrates have power to entertain claims of up to \$1,000 under the *Money Lenders and Infants Loans Act* 1941-1961. The amount in actions of debt or damages before one or more justices of the peace ranges up to \$60 in certain cases.

Victoria. The civil jurisdiction of magistrates is restricted as follows: (a) ordinary debts, to \$200; (b) any action in tort or contract, with the exception of a few torts such as breach of promise or illegal arrest (on which magistrates have no power to adjudicate), to \$600; and (c) any action in tort arising out of any accident in which a vehicle is involved, to \$1,000. No definite limit is fixed to the powers of the magistrates on the criminal side, and for some offences sentences of up to two years imprisonment may be imposed. The proportion of long sentences is, however, comparatively small.

Queensland. Generally speaking, the maximum term of imprisonment which justices can impose is six months, but in certain exceptional cases, such as offences against sections 233, 344 and 445 of the Criminal Code (betting houses, aggravated assaults, and unlawfully using animals), sentences of twelve months may be imposed. There is provision for applying cumulative sentences.

South Australia. The power of special magistrates to impose fines and imprisonment is defined by the special Act creating the offence and conferring jurisdiction. In the case of minor indictable offences which are tried summarily, a maximum penalty of \$200 fine or two years

imprisonment is fixed by the Justices Act, 1921-1960. Magistrates also have power to hear certain civil actions in which the amount claimed is less than \$2,500.

Western Australia. The powers of magistrates and justices with regard to offences which are tried summarily are governed by the Act creating the offence and giving them jurisdiction. Imprisonment in default of payment of a fine is regulated by a scale limiting the period according to the amount of the fine but not to exceed six months. The civil jurisdiction of Local Courts is restricted in general to \$1,000. By consent of the parties, any action that might be brought in the Supreme Court may be dealt with in a Local Court. Justices may act in the case of illness or absence of the magistrate. Magistrates are coroners, and justices may be appointed as acting coroners. Magistrates have appellate jurisdiction under some statutes and in country districts act as Chairmen of the Session Courts. They may be appointed as Commissioners of the Supreme Court. On the goldfields the magistrate is also the warden.

Tasmania. Magistrates are empowered to hear and determine in Courts of Petty Sessions all offences when an enactment expressly or by implication provides that the matter is to be determined summarily, or by or before justices, or that any offence is to be punishable upon summary conviction. In 1963, by an amendment to the *Justices Act* 1959, the categories of crimes triable summarily was extended to include crimes of a less serious nature. In the case of certain crimes the defendant has the option of electing summary trial or trial on indictment in the Supreme Court. However, the choice of election applies only where the property concerned exceeds the value of \$20 but does not exceed \$400. The defendant no longer has any right of election where the value of the property does not exceed \$20. In the case of a charge of forgery or uttering, a right of election exists provided the complaint is in respect of a cheque for not more than \$400. In the case of a charge of breaking into a building, other than a dwelling house, a defendant may elect to be tried summarily under certain conditions. No general limit is fixed in respect of sentences, the statute creating the offence almost invariably laying down the penalty. Where this is not the case, the *Contravention of Statutes Act* 1889 provides that a fine of \$100 may be imposed. Sentences of imprisonment which justices may impose vary with the nature of the offence, with a maximum of two years. The aggregate of terms of cumulative sentences may not exceed two years. The civil jurisdiction of magistrates is divided into two categories. A Commissioner of the Court of Requests, provided he is a legal practitioner, may hear actions for the recovery of debts and damages not exceeding \$500. As Commissioners are invariably police magistrates, this jurisdiction is State-wide. Courts of General Sessions, constituted by at least two justices, exercise similar powers, but the jurisdiction cannot exceed \$100. Only one court, that at Flinders Island, has the maximum jurisdiction, the others being limited to \$60.

Northern Territory. Stipendiary and special magistrates constituting courts of summary jurisdiction try offences punishable summarily. The punishment that may be imposed depends on the law creating the offence. Where there is no magistrate available, the offence may be tried by two or more justices of the peace or, if all parties consent, by one justice. Proceedings for committal on indictable offences may be heard by either a magistrate or a justice of the peace. Certain indictable offences under the Territory law may be tried summarily by a magistrate or two justices of the peace, who may impose a fine of up to \$200 or imprisonment for up to two years. A stipendiary magistrate constituting a local court has a civil jurisdiction to hear and determine claims for not more than \$2,000. A local court constituted by two justices of the peace (every special magistrate is also a justice of the peace) has a civil jurisdiction to hear claims up to \$100.

Australian Capital Territory. Stipendiary and special magistrates have general jurisdiction to try offences punishable summarily and also where a person is made liable to a penalty or punishment and no other provision is made for trial. The punishment depends on the law which creates the offence. In addition to jurisdiction (possessed by stipendiary and special magistrates throughout Australia) to try summarily with the consent of the defendant offences indictable under the *Crimes Act* 1914-1960 (in which case the magistrate cannot impose a fine exceeding \$200 or imprisonment exceeding one year), under Territory law certain indictable offences may also be tried summarily by a magistrate, who may impose a fine not exceeding \$100 or imprisonment for up to one year. Magistrates also hear proceedings for committal on indictable offences. In civil proceedings, magistrates try actions for amounts up to \$400. Justices of the peace have no judicial functions.

First offenders

In all States and Territories statutes are in force for dealing with first offenders. For particulars of the relevant legislation, see Year Book, No. 46, page 632. Provisions are incorporated in the various Acts whereby courts may extend leniency to the offender by means such as: (i) dismissal of the charge without proceeding to a conviction; (ii) freeing the offender or suspending sentence with the requirement of a recognizance for good behaviour for a specified period; and (iii) by placing the offender under the supervision of a probation officer for a specified period.

Children's courts

Special provisions exist in all States and Territories for dealing with juvenile offenders in special courts. Particulars of the relevant legislation and the constitution and powers of these courts are given in Year Book No. 49, pages 665-6.

Proceedings at lower magistrates' courts

Particulars of the differences in the jurisdiction of Lower Courts in the various States are given under Powers of Magistrates (pages 522-3). The proceedings of these courts are summarized in this paragraph. The statistics in the following tables are influenced by the factors affecting comparability listed at the beginning of this chapter (page 520).

Criminal proceedings—total cases. The total numbers of cases dealt with at magistrates' courts in each State and Territory for the years 1960 to 1964 are shown in the following table.

CASES AT MAGISTRATES' COURTS: OFFENCES CHARGED, STATES AND TERRITORIES, 1960 TO 1964

State or Territory	1960	1961	1962	1963	1964
New South Wales(a)	332,728	345,730	322,848	323,501	341,351
Victoria(a)	268,104	259,268	270,275	290,332	303,925
Queensland(a)(b)	73,804	79,448	79,772	87,737	97,878
South Australia(a)(b)	47,427	59,534	61,276	68,707	64,799
Western Australia(a)	50,107	48,220	52,764	54,907	53,705
Tasmania(a)	24,047	27,227	30,415	34,728	31,702
Northern Territory	2,958	3,091	4,350	5,886	6,581
Australian Capital Territory . .	3,168	3,305	4,795	6,435	(a) 7,797
Australia	802,343	825,823	826,495	872,233	907,738

(a) Excludes minor traffic offences settled without court appearance. (b) Year ended 30 June.

Differences in the figures in the preceding table between States, and within a State over a period of time, are influenced by the large number of traffic offences and the arrangements which have been introduced at various times for dealing with them. Provision exists in the States and the Australian Capital Territory for settlement of parking and minor traffic offences by payment of fines without court appearance.

**MINOR TRAFFIC OFFENCES SETTLED WITHOUT COURT APPEARANCES
STATES AND A.C.T., 1960 TO 1964**

State or Territory	1960	1961	1962	1963	1964
New South Wales	351,685	370,688	443,689	389,395	381,058
Victoria	69,895	113,874	132,144	170,590	181,479
Queensland(a)	40,648	58,977	75,322	79,237	115,446
South Australia(a)	149,241	156,067	191,592	183,684	198,943
Western Australia	50,879	44,392	42,582	43,970	49,488
Tasmania	25,801	36,745	33,217	34,394	38,555
Australian Capital Territory . .	..	..	..	..	(b) 1,419
Total	688,149	780,743	918,546	901,270	966,388

(a) Year ended 30 June. (b) From 14 September 1964.

Criminal proceedings—cases in which convictions were made. Of the cases dealt with in magistrates' courts, the following tables show the number in which convictions were made.

**CASES AT MAGISTRATES' COURTS IN WHICH CONVICTIONS WERE MADE
BY CLASS OF OFFENCE: STATES AND TERRITORIES, 1964**

Class of offence	N.S.W.	Vic.	Qld (a)(b)	S.A. (a)	W.A.	Tas.	N.T.	A.C.T.	Aust.
Against the person . . .	3,382	3,315	743	594	563	278	233	87	9,195
Against property . . .	27,581	19,816	4,964	3,539	6,616	1,789	149	389	
Forgery and offences against the currency . . .	863		12	10	55	87	4	4	65,874
Against good order . . .	103,051	32,769	33,517	8,927	6,659	1,336	4,107	569	
Other . . .	167,045	221,977	49,218	42,734	37,118	23,228	1,590	4,766	190,935
Total . . .	301,922	277,877	88,442	55,806	50,966	26,686	6,166	5,815	813,680

(a) Year ended 30 June.

(b) A person convicted on several counts at the one hearing is included only once.

**CASES AT MAGISTRATES' COURTS IN WHICH CONVICTIONS WERE MADE
STATES AND TERRITORIES, 1960 TO 1964**

State or Territory	1960	1961	1962	1963	1964
New South Wales(a) . . .	306,436	314,307	292,484	287,053	301,922
Victoria(a) . . .	245,807	235,581	246,017	266,088	277,877
Queensland(a)(b)(c) . . .	67,508	71,642	71,702	78,864	88,442
South Australia(a)(b) . . .	42,531	52,155	53,531	57,524	55,806
Western Australia(a) . . .	47,462	45,773	49,691	51,712	50,966
Tasmania(a) . . .	20,196	23,212	26,211	29,945	26,686
Northern Territory . . .	2,664	2,812	3,968	5,503	6,166
Australian Capital Territory . . .	2,280	2,613	4,089	6,026	(a) 5,815
Australia . . .	734,884	748,095	747,693	782,715	813,680

(a) Excludes minor traffic offences settled without court appearance.

(b) Year ended 30 June.

(c) A person convicted on several counts at the one hearing is included only once.

Criminal proceedings—cases in which convictions were made for drunkenness. The numbers of cases in which convictions were recorded during each of the years 1960 to 1964 are given in the following table.

**DRUNKENNESS: CASES IN WHICH CONVICTIONS WERE MADE, STATES AND
TERRITORIES, 1960 TO 1964**

State or Territory	1960	1961	1962	1963	1964
New South Wales . . .	68,591	67,809	68,546	65,630	61,537
Victoria . . .	29,116	27,212	28,529	27,606	24,048
Queensland(a) . . .	28,538	26,136	26,293	28,580	30,924
South Australia(a) . . .	5,273	5,438	6,178	7,485	6,952
Western Australia . . .	5,144	5,333	5,320	4,877	4,529
Tasmania . . .	512	534	575	562	420
Northern Territory . . .	822	1,037	1,388	1,730	3,021
Australian Capital Territory . . .	298	307	252	237	331
Australia . . .	138,294	133,806	137,081	136,707	131,762

(a) Year ended 30 June.

Civil proceedings. Civil proceedings in the lower courts refer to those in the Small Debts Courts in New South Wales, Courts of Petty Sessions in Victoria, Magistrates' Courts in Queensland, Local Courts in South Australia and Western Australia, Courts of Requests in Tasmania, Local Courts in the Northern Territory and the Court of Petty Sessions in the Australian Capital Territory. Statistics of civil proceedings in the lower courts are given on page 532.

Higher (judges') courts

Higher courts are presided over by a judge, sometimes with a jury (*see* page 521). Jurisdiction of the higher courts, which include District, County and Supreme Courts, includes appeals from the lower courts, cases of serious crime committed from lower courts, and civil cases involving common law, commercial causes, equity, etc. Under powers vested by the Commonwealth under the *Matrimonial Causes Act* 1959-1965 and the *Bankruptcy Act* 1924-1965 separate courts within the jurisdiction of the Supreme Courts of the various States and Territories deal exclusively with matrimonial cases and bankruptcy cases respectively.

Proceedings at higher courts comprise criminal, civil, divorce and bankruptcy proceedings. Separate details of each are given on pages 531-41.

An account of the methods adopted in each jurisdiction in connection with habitual offenders is given in Year Book No. 49, pages 668-9.

Capital punishment

There were seven executions in Australia during the period 1955 to 1965. Three took place in South Australia (in 1956, 1958 and 1964) and four in Western Australia (one in 1960 and 1961, two in 1964). In each case the offence was murder.

Under 'The Criminal Code Amendment Act of 1922' capital punishment was abolished in Queensland, and in New South Wales the Crimes Act was amended in 1955, abolishing capital punishment for all offences except treason and piracy with violence. In the Australian Capital Territory the *Child Welfare Ordinance* 1957-1962 provides that no death sentence is to be pronounced or recorded against a person under the age of 18 years, and sub-section (2.) of section 389 of the Tasmanian *Criminal Code Act* 1924 as amended contains a similar provision.

In the early days of the history of Australia the penalty of death was attached to a large number of offences, many of which would now be dealt with in a court of summary jurisdiction. The present tendency is to restrict death sentences to persons convicted of murder. Although rape is a capital offence in some States the penalty of death has not been imposed in recent years on persons convicted of it. The average annual number of executions in Australia from 1861 to 1880 was 9; from 1881 to 1900, 6; from 1901 to 1910, 4; from 1911 to 1920, 2; from 1921 to 1930, 2; from 1931 to 1940, 1; from 1941 to 1950, 0.5; and from 1951 to 1960, 0.7.

Serious crime

Selected crime reported or becoming known to police

The tables on pages 527-9 show some details of certain categories of offences reported or becoming known to police. This series, which commenced in 1964, is derived from police records and is based, as far as possible, on definitions and procedural arrangements uniformly determined for all States. The following explanations are necessary in order to interpret the figures in this series.

Number of offences reported or becoming known. All incidents reported or becoming known to the police which are found to constitute offences within the scope of the crimes covered are included. Offences are shown as 'reported or becoming known' in the year during which it has been established that the incident constitutes a crime, not necessarily in the period when the incident occurred. However, the incident is included when the police are satisfied that a crime has been committed, even though it may be established in subsequent proceedings that no crime or a crime of a different nature was committed. As far as possible, the offences are recorded in respect of the State in which the incident occurred, regardless of which police force undertakes investigations or prosecutions, or where an arrest is made. In the case of homicide, assault, robbery and rape, one offence is counted in respect of each victim, regardless of the number of offenders involved. In the case of breaking and entering, and fraud, etc., one offence is counted for each act or series of directly related acts occurring at the same time and place and under the same circumstances. Each motor vehicle stolen is counted as a separate offence.

Number of offences cleared. An offence of the type included in this series is counted as 'cleared' when an information (charge, arrest or summons to appear) has been laid against at least one person involved. However, an offence may also be counted as 'cleared' without an information being laid. This may occur when the offender has received an official caution or has died, has committed suicide, has been committed to a mental institution, or is in another jurisdiction from which extradition is not desired or available, or is serving a sentence; or if there are other obstacles to prosecution, such as diplomatic immunity or that the complainant refuses to prosecute. A clearance is always shown against the classification under which the offence was 'reported', regardless of the nature of the charge laid or changes in the description of an offence due to later information. The entries are made in respect of the year when the offence was 'cleared', whether or not the offence was 'reported' in that or an earlier year.

Persons involved in crimes cleared. This is the sum of the number of persons dealt with in each of the offences shown as 'cleared'. If more than one person is involved in the one offence, each person is counted. If the same person is involved in more than one offence cleared, he is

counted separately for each offence. Persons involved are shown against the categories of offences to which an incident was originally allocated, regardless of the actual offences they are charged with. This basis of counting 'persons involved in offences cleared' was adopted to reveal trends in crime participation by persons in various age-groups. The figures in this series are not directly comparable with statistics of persons charged or convicted in court, or of cases brought before the courts; nor do these figures reveal the number of offenders in the community.

Offences included in the statistics.

Homicide. Separate details are provided for murder, attempted murder (i.e. acts done with intent to murder) and manslaughter (unlawful killing other than murder), excluding manslaughter arising from motor traffic accidents.

Serious assault. These are assaults normally dealt with on indictment. Includes woundings, offences causing bodily harm, assaults with a weapon, etc., and attempts of this nature. Excludes sexual assault and robbery.

Robbery. Stealing anything, if at, or immediately before or after, the time of stealing, the offender uses or threatens to use violence to any person or property in order to obtain the thing stolen, or to prevent or overcome resistance to its being stolen. Includes attempts of this nature.

Rape. Includes attempted rape and assault with intent to rape. Excludes unlawful carnal knowledge (i.e., where consent is given, but the girl is below the legal age of consent, etc.) and indecent assault.

Breaking and entering. Breaking and entering a building (or entering a building and breaking out) and committing or intending to commit a crime. Includes burglaries. Separate details are shown according to the type of building involved, namely, *dwellings* (including unoccupied dwellings, tents, caravans, etc., used as dwellings, and the residential parts of hotels, schools, etc.); *shops* (including kiosks, service stations, restaurants, bars, non-residential clubs, etc.); and *offices, factories and warehouses* (including parts of buildings, but excluding dwellings and shops used for such purposes). Includes attempts.

Motor vehicle thefts, illegal use, etc. Includes all offences of illegal, unlawful or unauthorized use, use without consent, unlawfully assuming control, etc., no matter under which legislation these offences are prescribed. Excludes cases of 'interference', but includes attempts at illegal use.

Fraud, forgery, false pretences. Includes embezzlement, 'omit to account', misappropriation, fraudulent appropriation, conversion, larceny as bailee, falsification of accounts, company fraud, forgery, uttering, false pretences, passing of valueless cheques and offences by trustees. Includes attempts, but excludes imposition. As a general rule, offences are included only if there is an element of deception or trickery. Separate details are shown for *valueless cheque* offences (i.e., passing of valueless cheques, whether there is no account, insufficient funds or a false signature of the purported drawer of the cheque. However, this sub-group excludes cases where a genuine cheque is altered or the endorsement of the payee is forged. These cases are regarded as forgery and/or uttering and included in 'other').

Number of offences reported or becoming known to police

The following table shows, for Australia, the number of offences, in each of the seven categories covered by this series which were reported or became known to police in 1964 and 1965.

**SELECTED CRIME REPORTED OR BECOMING KNOWN TO POLICE
NUMBER OF OFFENCES, AUSTRALIA, 1964 AND 1965**

Category of crime	Six months ended—		Total 1964	Six months ended—		Total 1965
	June 1964	Dec. 1964		June 1965	Dec. 1965	
Homicide	140	132	272	149	122	271
Serious assault	970	954	1,924	981	914	1,895
Robbery	301	291	592	346	383	729
Rape	137	125	262	118	139	257
Breaking and entering (dwellings, shops, offices, etc.)	19,472	20,223	39,695	21,566	25,050	46,616
Motor vehicle theft, etc.	11,444	12,095	23,539	11,116	13,165	24,281
Fraud, forgery, etc.	7,407	8,301	15,708	8,880	8,292	17,172

Crimes cleared and persons involved

The tables which follow show, for the various categories of offences, the number of offences reported, the number cleared, and the number of persons involved according to age and sex. Subdivisions of the categories homicide, breaking and entering, and fraud, etc., are provided. See pages 526-7 for definitions used and the bases on which these statistics are prepared.

Homicide. The following table provides information on offences classified as homicide (other than manslaughter arising from motor traffic accidents) during 1964 and 1965.

**HOMICIDE: CRIMES REPORTED OR BECOMING KNOWN, CRIMES CLEARED
AND PERSONS INVOLVED, AUSTRALIA, 1964 AND 1965**

	Murder		Attempted murder		Man-slaughter		All homicide	
	1964	1965	1964	1965	1964	1965	1964	1965
Number reported or becoming known	143	141	95	101	34	29	272	271
Number cleared	137	132	92	99	34	29	263	260
Persons involved in crimes cleared—								
Age(a)—16 years and under	6	14	2	5	2	1	10	20
17 and 18 years	6	5	11	6	..	1	17	12
19 and 20 years	12	2	7	4	6	1	25	7
21 years and over	132	125	82	88	29	26	243	239
Total persons involved	156	146	102	103	37	29	(b)295	(b)278

(a) Age last birthday at time of clearance.

(b) Includes 51 females in 1964 and 44 in 1965.

Serious assault, robbery, rape. The next table provides details of offences classified as serious assault, robbery and rape during 1964 and 1965.

**SERIOUS ASSAULT, ROBBERY, RAPE: CRIMES REPORTED OR BECOMING
KNOWN, CRIMES CLEARED, AND PERSONS INVOLVED, AUSTRALIA, 1964 AND 1965**

	Serious assault		Robbery		Rape	
	1964	1965	1964	1965	1964	1965
Number reported or becoming known	1,924	1,895	592	729	262	257
Number cleared	1,693	1,604	308	355	229	210
Persons involved in crimes cleared—						
Aged(a)—16 years and under	164	147	81	55	55	43
17 and 18 years	364	280	122	134	110	72
19 and 20 years	244	251	92	93	79	60
21 years and over	1,284	1,197	219	315	118	143
Total persons involved	(b)2,056	(b)1,875	(c) 514	(c) 597	362	318

(a) Age last birthday at time of clearance.

(b) Includes 91 females in 1964 and 71 in 1965.

(c) Includes 29 females in 1964 and 15 in 1965.

Breaking and entering. This table shows details of offences classified as breaking and entering during 1964 and 1965.

**BREAKING AND ENTERING: CRIMES REPORTED OR BECOMING KNOWN
CRIMES CLEARED, AND PERSONS INVOLVED, AUSTRALIA, 1964 AND 1965**

	Dwellings		Shops		Offices and warehouses		Total	
	1964	1965	1964	1965	1964	1965	1964	1965
Number reported or becoming known	16,299	18,058	13,777	15,175	9,619	13,383	39,695	46,616
Number cleared	5,540	5,521	4,559	4,522	2,717	3,373	12,816	13,416
Persons involved in crimes cleared—								
Aged(a)—16 years and under	4,403	4,295	2,987	2,952	2,185	2,809	9,575	10,056
17 and 18 years	1,478	1,107	1,246	1,340	589	758	3,313	3,205
19 and 20 years	600	636	797	929	453	588	1,850	2,153
21 years and over	1,575	2,212	2,237	2,306	1,173	1,614	4,985	6,132
Total persons involved	8,056	8,250	7,267	7,527	4,400	5,769	19,723 (b)	21,546 (b)

(a) Age last birthday at time of clearance.

(b) Includes 641 females in 1964 and 505 in 1965.

Motor vehicle theft, etc., fraud, forgery, etc. This table shows details of offences classified as motor vehicle theft, illegal use, etc., and of fraud, forgery and false pretences.

**MOTOR VEHICLE THEFT, ETC., FRAUD, ETC.: CRIMES REPORTED
OR BECOMING KNOWN, CLEARED, AND PERSONS INVOLVED, AUSTRALIA
1964 AND 1965**

	Motor vehicle theft, etc.		Fraud, forgery, false pretences					
			Valueless cheques		Other		All frauds, etc.	
	1964	1965	1964	1965	1964	1965	1964	1965
Number reported or becoming known	23,539	24,281	6,707	7,269	9,001	9,903	15,708	17,172
Number cleared	5,357	5,563	5,015	5,342	8,022	9,109	13,037	14,451
Persons involved in crimes cleared—								
Males aged(a)—								
16 years and under	3,465	3,490	72	113	250	250	322	363
17 and 18 years	2,818	2,844	110	179	186	183	296	362
19 and 20 years	1,427	1,163	277	294	384	383	661	677
21 years and over	1,504	1,754	4,205	4,280	5,418	6,674	9,623	10,954
Total males	9,214	9,251	4,664	4,866	6,238	7,490	10,902	12,356
Females aged(a)—								
16 years and under	53	98	18	13	106	178	124	191
17 and 18 years	38	34	23	23	217	253	240	276
19 and 20 years	23	19	40	49	225	220	265	269
21 years and over	31	37	463	598	1,587	1,264	2,050	1,862
Total females	145	188	544	683	2,135	1,915	2,679	2,598
Total persons involved	9,359	9,439	5,208	5,549	8,373	9,405	13,581	14,954

(a) Age last birthday at time of clearance.

The number of stolen motor vehicles recovered were: 1964, 20,957; 1965, 21,678.

Convictions for serious crime at lower (magistrates') courts

The figures given in the tables on page 525 refer to all convictions, and include offences of a technical nature, drunkenness, and minor breaches of good order, which come under the heading of crime in a very different sense from the more serious offences. The following table has therefore been prepared to show convictions at magistrates' courts for the years 1960 to 1964 for what may be regarded as the more serious offences, i.e. offences against the person, offences against property, forgery and offences against the currency.

CONVICTIONS FOR SERIOUS CRIME^(a) AT MAGISTRATES' COURTS: STATES AND TERRITORIES, 1960 TO 1964

State or Territory	1960	1961	1962	1963	1964
New South Wales	31,529	31,696	32,320	32,656	31,826
Victoria	15,646	15,949	19,016	21,540	23,131
Queensland ^{(b)(c)}	4,678	4,736	4,833	5,768	5,707
South Australia ^(b)	2,604	3,552	3,693	3,727	4,145
Western Australia	5,764	5,256	6,814	7,813	7,189
Tasmania	1,788	1,636	1,704	1,570	2,122
Northern Territory	243	285	419	591	469
Australian Capital Territory .	331	573	286	492	480
Australia	62,583	63,683	69,085	74,157	75,069

(a) Offences against the person, offences against property, forgery and offences against the currency.
 (b) Year ended 30 June. (c) A person convicted on several counts at the one hearing is included only once.

Committals to higher (judges') courts

The following tables show the number of offences which were committed to higher courts in each State and Territory.

COMMITTALS TO HIGHER COURTS, BY CLASS OF OFFENCE: STATES AND TERRITORIES, 1964

Class of offence	N.S.W.	Vic.	Qld (a)(b)	S.A. (a)	W.A.	Tas.	N.T.	A.C.T.	Australia
Against the person	1,437	1,619	356	263	71	66	17	22	3,851
Against property	5,332	3,247	894	290	336	508	29	155	11,454
Forgery and offences against the currency	577		7	34	3	27	15	..	
Against good order	111	246	4	7	13	3	2	..	386
Other	118	1,060	9	8	20	6	2	..	1,223
Total	7,575	6,172	1,270	602	443	610	65	177	16,914

(a) Year ended 30 June. (b) A person committed on several counts at the one hearing is included only once.

COMMITTALS TO HIGHER COURTS: STATES AND TERRITORIES, 1960 TO 1964

State or Territory	1960	1961	1962	1963	1964
New South Wales	8,212	8,294	7,414	8,538	7,575
Victoria	5,274	4,598	5,468	5,306	6,172
Queensland ^{(a)(b)}	1,211	1,527	1,295	1,354	1,270
South Australia ^(a)	542	671	712	600	602
Western Australia	362	298	450	523	443
Tasmania	475	725	643	705	610
Northern Territory	26	86	92	107	65
Australian Capital Territory .	97	65	110	92	177
Australia	16,199	16,264	16,184	17,225	16,914

(a) Year ended 30 June. (b) A person committed on several counts at the one hearing is included only once.

Persons convicted at higher (judges') courts

The following tables show the number of persons convicted at higher courts in each State and Territory.

PERSONS CONVICTED AT HIGHER COURTS, BY NATURE OF OFFENCE: STATES AND TERRITORIES, 1964

Offence	N.S.W.	Vic.	Qld (a)(b)	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Against the person—									
Murder	25	7	5	3	3	..	1	1	45
Attempted murder	8	5	4	..	..	2	1	..	20
Manslaughter(c)	16	14	7	9	14	5	2	..	67
Culpable driving	18	..	18	8	..	1	..	..	45
Rape	44	15	25	8	3	3	2	4	104
Incest	(d) 10	17	8	3	4	..	..	..	42
Other offences against females	273	414	101	131	6	20	1	1	947
Abduction	5	10	3	..	..	2	..	..	20
Unnatural offences	86	83	16	39	3	6	3	4	240
Abortion and attempt to procure	3	6	2	3	4	..	..	..	18
Bigamy	25	11	5	4	1	..	..	..	46
Malicious wounding	45	..	..	..	..	..	..	..	45
Aggravated assault	42	29	47	22	3	9	6	1	159
Common assault	27	18	5	4	..	..	4	2	60
Attempted suicide . . . . .	..	..	..	..	..	..	..	1	1
Other offences against the person	12	76	8	..	..	..	2	..	98
Total against the person	639	705	254	234	41	48	22	14	1,957
Against property—									
Burglary, breaking and entering	1,113	285	588	214	127	76	23	24	2,450
Robbery and stealing from the person	82	51	23	11	7	16	..	..	190
Livestock stealing . . . . .	..	17	9	5	1	..	2	..	34
Embezzlement and fraudulent misappropriation	100	48	2	8	13	3	..	1	175
Other larceny	537	95	29	21	20	..	5	10	717
Unlawfully using vehicles	1	57	146	..	4	..	..	4	212
Receiving	56	29	28	8	3	5	..	3	132
Fraud and false pretences	83	62	6	23	9	8	..	5	196
Arson	7	14	12	5	2	3	..	2	45
Malicious damage	24	8	10	..	..	..	..	1	43
Other offences against property	11	10	10	4	..	..	..	..	35
Total against property	2,014	676	863	299	186	111	30	50	4,229
Forgery and offences against the currency	13	65	6	29	1	10	1	2	127
Against good order	1	19	2	1	1	3	..	..	27
Other	22	328	9	66	11	..	..	..	436
Grand total	2,689	1,793	1,134	629	240	172	53	66	6,776

(a) Year ended 30 June. (b) A person convicted on several counts at the one hearing is included only once, but if a person has been convicted at different hearings during the year, whether for the same or for a different type of offence, the results of all hearings are recorded separately. (c) Includes causing death by dangerous driving. (d) Incest previously included with Other offences against females.

PERSONS CONVICTED AT HIGHER COURTS: STATES AND TERRITORIES
1960 TO 1964

State or Territory	1960	1961	1962	1963	1964
New South Wales	2,635	2,712	2,513	2,907	2,689
Victoria	1,996	2,307	2,329	1,946	1,793
Queensland(a)(b)	1,020	1,279	1,175	1,187	1,134
South Australia	580	606	718	745	629
Western Australia	183	203	228	300	240
Tasmania	295	304	270	293	172
Northern Territory	29	87	74	92	53
Australian Capital Territory	62	54	57	51	66
Australia	6,800	7,552	7,364	7,521	6,776

(a) Year ended 30 June. (b) A person convicted on several counts at the one hearing is included only once.

Civil cases

The statistics in the two tables in this section are influenced by factors which affect comparability between States and between courts. The total number of plaints entered and amounts awarded plaintiffs in the lower courts during 1964 are shown in the following table.

CIVIL CASES AT LOWER COURTS: STATES AND TERRITORIES, 1964

—	N.S.W.	Vic.	Qld (a)	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia
Plaints entered number	175,835	197,023	48,147	103,218	60,023	40,574	2,452	7,621	634,893
Amount awarded to plaintiffs \$'000	6,509	8,400	3,322	4,329	2,534	574	77	401	26,145

(a) Year ended 30 June.

The following table shows the civil judgments (excluding those for divorce and bankruptcy) in the higher courts during 1964. The particulars given below include the number and amount of judgments entered by default or confession or agreement.

CIVIL CASES AT HIGHER COURTS: STATES AND TERRITORIES, 1964

—	N.S.W.	Vic.	Qld (a)	S.A.	W.A. (b)	Tas.	N.T.	A.C.T.	Australia
Judgments number	52,858	19,723	720	236	408	n.a.	n.a.	325	n.a.
Amount awarded \$'000	n.a.	14,695	2,692	1,467	1,237	n.a.	n.a.	482	n.a.

(a) Year ended 30 June. (b) Judgments signed and entered.

Transactions of the High Court

TRANSACTIONS OF THE HIGH COURT OF AUSTRALIA, 1964 AND 1965

Original jurisdiction(a)	1964	1965	Appellate jurisdiction	1964	1965
Number of writs issued .	108	122	Number of appeals set down for hearing . . .	107	120
Number of causes entered for trial . . .	51	20	Number allowed . .	31	39
Judgments for plaintiffs .	7	12	Number dismissed . .	88	61
Judgments for defendants .	15	5	Otherwise disposed of .	16	27
Otherwise disposed of .	36	23			
Amount of judgments \$	59,244	114,424			

(a) Some matters dealt with by the High Court neither originate as writs nor are entered as causes.

During 1964 and 1965, respectively, the High Court dealt also with the following: appeals from assessments under the Taxation Assessment Acts, 52, 46; special cases stated for the opinion of the Full Court, 22, 16; applications for prohibition, etc., 14, 13. The fees collected amounted to \$9,308 in 1964 and \$7,056 in 1965.

Divorce and other matrimonial causes

Separation and maintenance orders of courts of summary jurisdiction

In all States and Territories there are laws enabling a wife whose husband leaves her or the children of the marriage without adequate means of support to obtain a maintenance order against the husband from a court of summary jurisdiction. In some States and in the Northern Territory, courts of summary jurisdiction also have power to make separation orders. A separation order is intended primarily for the protection of the person of the wife.

Divorce and other matrimonial proceedings in higher courts

A marriage may be terminated by a Supreme Court of a State or Territory, under powers vested in these courts by Commonwealth legislation, in one of three ways. Firstly, there may be a dissolution of the marriage, commonly known as divorce; secondly, the courts may annul a marriage; and thirdly, there can be a judicial separation of the parties. Until the Commonwealth *Matrimonial Causes Act* 1959 came into operation each State was primarily responsible for legislation relating to matrimonial causes. The law varied from State to State, for example, as to the period of desertion needed to obtain a decree for the dissolution of marriage. In 1959, however, the Commonwealth *Matrimonial Causes Act* was passed, and it came into force on 1 February 1961. The Act establishes uniform grounds throughout the whole of the Commonwealth for the termination of marriage. While the Act displaces corresponding State law, it vests jurisdiction in existing State and Territorial Courts.

Matrimonial Causes Act 1959-1965

Under this Act a decree for the dissolution of marriage may be granted on one or more of fourteen grounds, which include adultery, desertion, separation for five years in certain circumstances, cruelty, drunkenness, and failure to comply with a restitution decree.

Proceedings for nullity of marriage may be instituted in respect of a marriage which is void or voidable. A marriage which is void has no existence at all, and so it is not legally necessary to obtain a decree of nullity of marriage, but since the issue may depend on difficult questions of fact, such as proof that the consent of one of the parties to the marriage was not a real consent, it is advisable and customary to seek a court judgment which decides the question of the validity of the marriage.

Proceedings for annulling a voidable marriage may be instituted on various grounds, as, for example, where at the time of the marriage either party was a mental defective. A voidable marriage is void from the date of the decree absolute, but until then the parties have the status of married people, and transactions concluded on the basis of the existence of that status cannot be undone or re-opened. Since the parties to a marriage which is void or which has been voided do not have the status of married people, they may remarry.

The death of either husband or wife terminates any proceedings under the Act. A decree for dissolution or annulment of a voidable marriage is first a decree *nisi*. The decree automatically becomes absolute at the expiration of three months, unless it is in the meantime rescinded, appeal proceedings are instituted, or there are children of the marriage under the age of 16, in which case the Court must be satisfied that appropriate arrangements have been made for their welfare before the decree will become absolute. The parties cannot remarry until a decree *nisi* has become absolute.

A decree of judicial separation is available on most of the grounds available for divorce. It leaves unimpaired the status of marriage, but suspends rights and duties with respect to cohabitation. A husband is not responsible for the acts of his wife, except that he is liable for necessities supplied to her if he has failed to pay alimony ordered by a court. Persons who have judicially separated cannot remarry, but a divorce may be obtained on the same facts as those on which the decree of judicial separation was based.

The Act provides for financial grants to approved marriage guidance organizations, and the courts are enjoined to consider at all times the possibility of reconciliation and they may take certain steps to endeavour to effect a reconciliation.

Number of petitions filed

The following table shows the number of petitions for dissolution of marriage, nullity of marriage and judicial separation filed in each State and Territory during 1965.

**PETITIONS FILED FOR DISSOLUTION OF MARRIAGE, NULLITY OF MARRIAGE
AND JUDICIAL SEPARATION: STATES AND TERRITORIES, 1965**

Petition for—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Dissolution of marriage—									
Husband petitioner . . .	1,722	1,086	613	390	369	143	31	59	4,413
Wife petitioner . . .	2,957	1,415	653	717	367	185	30	102	6,426
Total . . .	4,679	2,501	1,266	1,107	736	328	61	161	10,839
Nullity of marriage—									
Husband petitioner . . .	3	3	..	6	1	3	..	..	16
Wife petitioner . . .	17	9	1	7	1	..	..	..	35
Total . . .	20	12	1	13	2	3	..	..	51
Dissolution or nullity—									
Husband petitioner . . .	2	8	3	2	..	..	..	..	15
Wife petitioner . . .	1	7	2	..	..	..	..	..	10
Total . . .	3	15	5	2	..	..	..	..	25
Judicial separation—									
Husband petitioner . . .	..	..	1	..	..	..	..	..	1
Wife petitioner . . .	4	4	5	5	..	..	..	2	20
Total . . .	4	4	6	5	..	..	..	2	21
Total petitions—									
Husband petitioner . . . No.	1,727	1,097	617	398	370	146	31	59	4,445
Wife petitioner . . . No.	3,979	1,435	661	729	368	185	30	104	6,491
Per cent	63	57	52	65	50	56	49	64	59
Grand total . . .	4,706	2,532	1,278	1,127	738	331	61	163	10,936

Number of decrees granted

The following table shows the number of dissolutions of marriage, nullities of marriage and judicial separations granted in each State and Territory during 1965.

**DISSOLUTIONS OF MARRIAGE, NULLITIES OF MARRIAGE AND JUDICIAL
SEPARATIONS GRANTED: STATES AND TERRITORIES, 1965**

Decree for—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Dissolution of marriage(a)—									
Husband petitioner . . .	1,348	882	456	354	275	131	26	51	3,523
Wife petitioner . . .	2,092	1,206	596	497	329	148	15	83	4,966
Petition by both . . .	..	1	..	1	..	..	..	..	2
Total . . .	3,440	2,089	1,052	852	604	279	41	134	8,491
Nullity of marriage(b)—									
Husband petitioner . . .	3	5	..	..	2	..	..	..	10
Wife petitioner . . .	11	8	3	3	..	..	..	..	25
Total . . .	14	13	3	3	2	..	..	..	35
Judicial separation—									
Husband petitioner . . .	..	..	..	..	..	..	..	..	..
Wife petitioner . . .	1	1	4	..	..	1	..	1	8
Total . . .	1	1	4	..	..	1	..	1	8
Total decrees—									
Husband petitioner . . . No.	1,351	887	456	354	277	131	26	51	3,533
Wife petitioner . . . No.	2,104	1,215	603	500	329	149	15	84	4,999
Petition by both . . . No.	..	1	..	1	..	..	..	..	2
Grand total . . .	3,455	2,103	1,059	855	606	280	41	135	8,534

(a) Decrees absolute. (b) Final decrees.

The following table shows the number of dissolutions of marriage, nullities of marriage and judicial separations granted in each State and Territory for each year from 1961 to 1965.

DISSOLUTIONS OF MARRIAGE, NULLITIES OF MARRIAGE AND JUDICIAL SEPARATIONS GRANTED: STATES AND TERRITORIES, 1961 TO 1965

State or Territory	1961	1962	1963	1964	1965
DISSOLUTIONS OF MARRIAGE(a)					
New South Wales	3,156	3,113	3,293	3,024	3,440
Victoria	1,248	1,615	1,616	2,130	2,089
Queensland	779	920	910	981	1,052
South Australia	718	685	765	887	852
Western Australia	466	582	553	542	604
Tasmania	286	248	260	229	279
Northern Territory	23	38	38	31	41
Australian Capital Territory	36	44	41	93	134
Australia	6,712	7,245	7,476	7,917	8,491

NULLITIES OF MARRIAGE(b)					
New South Wales	18	18	13	14	14
Victoria	9	8	7	19	13
Queensland	2	5	6	5	3
South Australia	7	6	5	3	3
Western Australia . . . . .	..	2	1	2	2
Tasmania . . . . .	..	1	..	1	..
Northern Territory . . . . .	..	..	..	..	..
Australian Capital Territory	1	..	..	..	..
Australia	37	40	32	44	35

JUDICIAL SEPARATIONS					
New South Wales	1	..	..	3	1
Victoria . . . . .	..	..	3	2	1
Queensland . . . . .	..	3	3	..	4
South Australia . . . . .	..	1	..	..	..
Western Australia	1	1	..	1	..
Tasmania . . . . .	..	..	1	..	1
Northern Territory . . . . .	..	..	..	..	..
Australian Capital Territory . . . . .	..	..	..	..	1
Australia	2	5	7	6	8

TOTAL DECREES GRANTED					
Grand total, Australia	6,750	7,290	7,513	7,967	8,534

(a) Decrees absolute. (b) Final decrees.

The ten-year averages of the numbers of decrees (i.e., dissolutions, nullities and judicial separations) granted annually in Australia for the 80 years from 1881 to 1960 are as follows:

1881-90	1891-1900	1901-10	1911-20	1921-30	1931-40	1941-50	1951-60
70	357	399	741	1,692	2,508	6,187	6,973

Grounds on which decrees were granted

The grounds on which dissolutions of marriage, nullities of marriage and judicial separations were granted in each State and Territory during 1965 are shown in the following table. A few of the decrees granted during 1965 were for petitions lodged under the former, superseded, legislation.

**DISSOLUTIONS OF MARRIAGE, NULLITIES OF MARRIAGE AND JUDICIAL
SEPARATIONS: GROUNDS, STATES AND TERRITORIES, 1965**

Ground	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
DISSOLUTIONS OF MARRIAGE									
Single grounds—									
Desertion	1,572	996	550	312	182	119	12	34	3,777
Adultery	759	549	189	214	205	57	18	44	2,035
Separation	581	467	221	180	167	68	4	18	1,706
Cruelty	186	27	33	101	14	6	3	10	380
Drunkenness	55	13	9	9	4	4	..	9	103
Failure to pay maintenance	1	1	..	2	6	..	..	..	10
Non-compliance with									
restitution decrees	13	..	2	..	..	..	..	..	15
Refusal to consummate	9	8	5	..	1	..	..	1	24
Insanity	9	1	2	..	..	..	..	1	13
Frequent convictions	10	5	2	4	..	2	..	..	23
Imprisonment	4	1	2	..	..	..	..	..	7
Inflicting grievous bodily									
harm . . . . .	..	1	..	1	..	..	1	..	3
Rape	2	3	..	..	..	..	..	..	5
Other single grounds	3	..	..	1	1	1	..	..	6
Dual grounds—									
Desertion and adultery	49	5	15	6	6	8	2	2	93
Desertion and separation	61	9	6	8	10	11	1	2	108
Desertion and cruelty	27	..	4	1	1	2	..	1	36
Desertion and drunkenness	17	..	3	3	1	..	..	2	26
Desertion and failure to pay									
maintenance	3	..	1	..	..	..	..	..	4
Adultery and cruelty	2	..	..	2	..	..	..	2	6
Separation and insanity	1	..	..	1	1	..	..	..	3
Cruelty and drunkenness	55	2	5	3	3	..	..	8	76
Other dual grounds	12	..	3	2	2	..	..	..	19
Three grounds or more	9	1	..	2	..	1	..	..	13
Total	3,440	2,089	1,052	852	604	279	41	134	8,491

NULLITY OF MARRIAGE

Bigamy	8	4	1	..	..	..	..	..	13
Invalid marriage	2	..	..	3	..	..	..	..	2
Incapacity to consummate	4	9	2	..	2	..	..	..	20
Total	14	13	3	3	2	..	..	..	35

JUDICIAL SEPARATIONS

Adultery . . . . .	..	1	3	..	..	1	..	..	5
Cruelty . . . . .	..	..	..	..	..	..	..	1	1
Drunkenness	1	..	..	..	..	..	..	..	1
Cruelty and drunkenness . . . . .	..	..	1	..	..	..	..	..	1
Total	1	1	4	1	..	1	8

TOTAL DECREES GRANTED

Grand total	3,455	2,103	1,059	855	606	280	41	135	8,534
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Ages of husband and wife at time of marriage

The following table shows the ages at time of marriage of husbands and wives who were parties to marriages dissolved in 1965.

**DISSOLUTIONS, BY AGES OF PARTIES AT TIME OF MARRIAGE
AUSTRALIA, 1965**

Age of husband (years)	Age of wife (years)											Total husbands
	Under 20	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60 and over	Not stated	
Under 20 . .	516	113	4	1	1	..	..	..	..	..	1	636
20-24 . .	1,720	2,046	253	36	14	..	..	..	..	..	..	4,069
25-29 . .	443	1,099	461	122	30	7	..	..	..	..	..	2,162
30-34 . .	83	281	218	149	50	14	2	1	..	..	1	799
35-39 . .	22	92	94	71	69	23	15	..	..	..	..	386
40-44 . .	8	26	28	48	39	26	13	3	1	..	..	192
45-49 . .	3	3	11	26	22	25	18	8	2	1	1	120
50-54 . .	..	4	3	7	13	11	12	8	3	..	1	62
55-59 . .	..	1	..	3	4	7	7	4	3	4	..	33
60 and over . .	1	..	..	1	1	1	2	2	7	11	..	26
Not stated . .	..	2	..	..	..	..	..	..	..	..	4	6
Total wives .	2,796	3,667	1,072	464	243	114	69	26	16	16	8	8,491

Ages of husband and wife at time of dissolution of marriage

The following table shows the number of husbands and wives in each age group who were parties to marriages dissolved in 1965. Age is taken at the time the decree absolute was made.

**DISSOLUTIONS, BY AGES OF PARTIES AT TIME OF DISSOLUTION OF MARRIAGE
AUSTRALIA, 1965**

Age of husband (years)	Age of wife (years)											Total husbands
	Under 20	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60 and over	Not stated	
Under 20 . .	1	..	..	..	..	..	..	..	..	..	..	1
20-24 . .	11	157	23	1	..	1	..	..	..	..	..	193
25-29 . .	5	374	624	70	8	1	..	..	..	..	..	1,082
30-34 . .	2	88	640	502	114	15	8	..	..	..	..	1,369
35-39 . .	..	19	182	587	622	137	24	9	1	..	1	1,582
40-44 . .	..	3	39	158	557	565	105	29	3	2	..	1,461
45-49 . .	..	..	13	33	135	398	357	81	15	5	1	1,038
50-54 . .	..	1	4	12	61	150	293	256	35	12	..	824
55-59 . .	..	..	..	4	16	39	109	159	108	31	1	467
60 and over . .	..	1	1	1	10	16	39	69	112	218	1	468
Not stated . .	..	..	2	..	..	..	..	..	..	..	4	6
Total wives	19	643	1,528	1,368	1,523	1,322	935	603	274	268	8	8,491

Duration of marriages dissolved and number of children

The following table shows the number of dissolutions of marriage granted in 1965, classified according to the legal duration of the marriage (i.e., the period from the date of marriage to the date when the decree *nisi* was made absolute) and number of children. Corresponding information for the year 1964 appeared on page 1307 of Year Book No. 51.

DISSOLUTIONS, BY DURATION OF MARRIAGES DISSOLVED AND NUMBER OF CHILDREN: AUSTRALIA, 1965

Duration of marriage (years)	Dissolutions of marriages with—											Total dissolutions of marriage	Total children (a)
	No children	1 child	2 children	3 children	4 children	5 children	6 children	7 children	8 children	9 children	10 or more children		
Under 1 year	1	..	..	..	..	..	..	..	..	..	..	1	..
1 year and under 2	10	..	1	..	..	..	..	..	..	..	..	12	3
2 years and under 3	35	11	3	..	2	..	..	..	..	..	..	51	25
3 " " " 4	79	32	10	2	2	..	..	..	..	..	..	125	66
4 " " " 5	241	108	26	8	..	..	..	..	..	..	..	383	184
5 " " " 6	216	144	58	8	4	..	..	..	..	..	..	430	300
6 " " " 7	176	182	83	13	3	..	..	1	..	..	..	458	406
7 " " " 8	180	153	77	31	8	2	..	2	..	..	..	453	456
8 " " " 9	126	149	121	38	9	1	..	..	..	..	..	444	546
9 " " " 10	120	142	102	39	13	1	1	1	..	..	..	419	533
10 " " " 11	118	106	125	41	10	4	1	..	..	..	..	405	545
11 " " " 12	85	92	102	60	21	3	2	..	..	..	..	365	587
12 " " " 13	93	85	97	60	18	4	2	1	..	..	..	360	570
13 " " " 14	73	88	106	52	17	9	..	2	..	1	..	348	592
14 " " " 15	85	70	107	60	32	6	3	1	1	..	..	365	655
15 " " " 16	69	62	93	55	23	12	..	2	..	..	..	316	579
16 " " " 17	75	64	103	54	18	10	2	2	1	..	..	329	588
17 " " " 18	74	66	75	69	20	8	3	3	1	1	..	320	599
18 " " " 19	47	67	100	57	38	7	4	2	..	..	..	322	663
19 " " " 20	51	62	71	61	24	3	6	..	1	1	2	282	572
20 " " " 21	38	40	65	46	11	12	4	1	..	1	..	218	452
21 " " " 25	189	185	229	155	52	25	12	3	1	1	2	854	1,571
25 " " " 30	257	189	121	49	21	6	1	2	1	..	..	647	720
30 " " " 35	229	64	22	8	6	3	1	..	..	..	..	333	177
35 " " " 40	126	16	6	1	..	..	..	..	..	..	..	149	31
40 " " " 45	58	1	1	..	..	..	..	..	..	..	..	60	3
45 " " and over	40	1	1	..	..	..	..	..	..	..	..	42	3
Total dissolutions of marriage	2,891	2,180	1,905	967	352	116	42	23	6	5	4	8,491	..
Total children (a)	..	2,180	3,810	2,901	1,408	580	252	161	48	45	41	..	11426

(a) The term 'children' used in the Commonwealth legislation refers to living 'children of the marriage' under 21 years, but the table above includes a small number of dissolutions granted to petitions filed under old legislation, i.e. prior to 1961, in which the term 'children' was used differently. For former definitions of children see Year Book, No. 48, page 652.

Ages of children of dissolved marriages

The following table shows the ages of children of marriages dissolved in 1965. The children referred to are those under 21 years of age at the time of petition.

CHILDREN OF DISSOLVED MARRIAGES(a), BY AGE AT TIME OF PETITION AUSTRALIA, 1965

Petitioner	Ages of children at time of petition—																		Total number of children
	Under 12 mths	1 yr	2 yrs	3 yrs	4 yrs	5 yrs	6 yrs	7 yrs	8 yrs	9 yrs	10 yrs	11 yrs	12 yrs	13 yrs	14 yrs	15 yrs	16-20 yrs	Not stated	
Husband	24	69	154	202	245	278	256	291	284	261	264	241	251	245	221	205	852	7	4,350
Wife	50	138	280	414	409	427	449	456	428	419	436	431	400	399	332	356	1,245	4	7,073
Petitions of both	..	..	1	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	3
Total	74	207	435	616	655	705	705	747	712	681	700	672	651	644	553	561	2,097	11	11426

(a) See footnote (a) to preceding table.

Number of divorced persons at each census, 1911 to 1961

The following table shows the number and proportion of divorced persons in Australia as recorded from returns supplied at each census from 1911 to 1961. A classification of divorced persons by ages for the censuses from 1891 to 1947 appeared in earlier issues of the Year Book (see No. 39, page 269). Prior to 1911 no record was made of divorced persons in South Australia, so comparisons cannot be made beyond that date.

DIVORCED PERSONS AT CENSUS DATES: AUSTRALIA, 1911 TO 1961

Sex	Number						Proportion per 10,000 of males or females 15 years of age and over					
	1911	1921	1933	1947	1954	1961	1911	1921	1933	1947	1954	1961
Males	2,368	4,233	10,298	25,052	32,389	38,640	15	23	42	89	100	105
Females	2,140	4,304	10,888	27,516	36,650	43,339	15	24	46	96	115	119

Bankruptcy

Particulars of bankruptcy in each State to the end of 1927 were incorporated in issues of the Year Book prior to No. 23. On 1 August 1928 the Bankruptcy Act of the Commonwealth, which is now the *Bankruptcy Act 1924-1965*, came into operation.

Under the *Bankruptcy Act 1924-1965* the Commonwealth is divided into bankruptcy districts which coincide generally with State boundaries. A Federal Court of Bankruptcy has been established with jurisdiction throughout Australia, but it exercises this jurisdiction mainly in the bankruptcy districts of New South Wales, which includes the Australian Capital Territory, and Victoria. Certain State courts have been invested with federal jurisdiction in bankruptcy and, outside New South Wales and Victoria, usually exercise that jurisdiction in the appropriate bankruptcy district.

Any person unable to pay his debts may apply voluntarily for the sequestration of his estate, or his creditors may apply for a compulsory sequestration if he has committed an act of bankruptcy. The act of bankruptcy usually relied on is non-compliance by a debtor with a bankruptcy notice which requires the debtor to whom it is addressed to pay within a specified time, to a creditor who has obtained a final judgment or order to pay, the amount of the debt, or satisfy the Court that he has a counter claim, set-off, or cross demand which equals or exceeds the judgment debt. If a bankruptcy notice is not complied with a creditor may thereupon present a petition against a debtor, provided that the debt or debts amount to \$100, the act of bankruptcy relied on has occurred within the six months preceding the presentation of the petition, and the statutory requirements relating to domicile or residence are applicable to the debtor.

Upon the issue of a sequestration order the property of the bankrupt vests in the official receiver named in the order, and his property is divisible among his creditors in accordance with the provisions of the Act. No creditor to whom the bankrupt is indebted in respect of any debt provable in bankruptcy has any remedy against the property or person of the bankrupt except by leave of the court.

Under Part XI of the Act, instead of having a sequestration order made against his estate a debtor may compound with his creditors or assign his estate for their benefit. Under Part XII of the Act a debtor may enter into a scheme of arrangement. The object of Parts XI and XII of the Act is to allow a debtor and his creditors to enter into an agreement concerning the debts due to the creditors without having a sequestration order made against the debtor.

The Court has power to decide questions of law affecting a bankrupt estate. Questions of fact may be tried before a jury.

The Act provides for an Inspector-General in Bankruptcy. It also provides for a Registrar and an Official Receiver to be appointed for each bankruptcy district. A Registrar in Bankruptcy is controlled by the Court and has such duties as the Attorney-General of the Commonwealth directs, or as are prescribed, and exercises such functions of an administrative nature as are authorized by the Court. He may examine a bankrupt or a person indebted to a bankrupt or having in his possession any of the estate or effects of a bankrupt. Stipendiary magistrates are appointed Deputy Registrars in country districts.

All sequestrated estates are vested in an Official Receiver, who is a permanent officer of the Commonwealth Public Service. His duties are to investigate the conduct, property and transactions of the debtor, and the cause of bankruptcy of a debtor, and to realize and administer the estate of the debtor. In respect of these activities the Official Receiver is under the control of the Court.

Persons registered by the Court as qualified to act as trustees may be appointed by resolution of the creditors to be trustees of estates. In cases where a registered trustee under a deed of arrangement, composition, or assignment (Parts XI and XII of the Act) is removed from or vacates his office, the official receiver may be appointed by the Court to complete the administration of the estate, or the Court may direct the official receiver to convene a meeting of the creditors in the estate to enable them to appoint a registered trustee to complete the administration of the estate.

Bankruptcy proceedings

The following table shows the number of bankruptcies of the various types in each State, together with the assets and liabilities of the debtors, during 1964-65.

BANKRUPTCY PROCEEDINGS: STATES AND TERRITORIES, 1964-65

State or Territory		Sequestration orders and orders for administration of deceased debtors' estates	Compositions and schemes under Part XI	Deeds under Part XI	Deeds of arrangement, Part XII	Total
N.S.W. (a)	Number	746	10	3	39	798
	Liabilities \$	5,002,740	129,058	57,094	748,328	5,937,220
	Assets \$	2,200,504	95,826	6,122	526,716	2,829,168
Vic. .	Number	541	19	2	51	613
	Liabilities \$	4,689,902	878,974	33,302	740,720	6,342,898
	Assets \$	1,043,414	378,876	28,238	637,694	2,088,222
Qld .	Number	240	2	..	13	255
	Liabilities \$	1,782,322	39,216	..	219,082	2,040,620
	Assets \$	981,618	42,006	..	141,766	1,165,390
S. Aust.	Number	597	33	3	..	633
	Liabilities \$	3,027,792	392,324	87,328	..	3,507,444
	Assets \$	1,563,374	263,104	52,108	..	1,878,586
W. Aust.	Number	236	64	4	4	308
	Liabilities \$	891,524	553,582	103,044	62,256	1,610,406
	Assets \$	175,350	348,814	42,750	31,136	598,050
Tas. .	Number	92	..	1	3	96
	Liabilities \$	339,874	..	31,602	33,840	405,316
	Assets \$	162,334	..	..	27,226	189,560
N.T.	Number	1	..	..	..	1
	Liabilities \$	5,684	..	..	..	5,684
	Assets \$	160	..	..	..	160
Australia	Number	2,453	128	13	110	2,704
	Liabilities \$	15,739,838	1,993,154	312,370	1,804,226	19,849,588
	Assets \$	6,126,754	1,128,626	129,218	1,364,538	8,749,136

(a) Includes the Australian Capital Territory.

The two tables which follow shows Australian figures in respect of each of the various types of bankruptcy, and State figures in respect of all types of bankruptcy, for the past five years.

BANKRUPTCY PROCEEDINGS: AUSTRALIA, 1960-61 TO 1964-65

Year		Sequestration orders and orders for administration of deceased debtors' estates	Compositions and schemes under Part XI	Deeds under Part XI	Deeds of arrangement, Part XII	Total
1960-61	Number . . .	2,004	118	21	225	2,368
	Liabilities \$'000	11,220	850	379	4,341	16,790
	Assets \$'000	6,667	651	393	3,331	11,041
1961-62	Number . . .	2,239	172	31	218	2,660
	Liabilities \$'000	13,977	2,157	476	3,273	19,882
	Assets \$'000	7,008	1,747	388	2,770	11,912
1962-63	Number . . .	2,371	183	23	158	2,735
	Liabilities \$'000	14,010	3,776	432	3,165	21,383
	Assets \$'000	5,925	3,541	514	2,813	12,793
1963-64	Number . . .	2,392	142	23	121	2,678
	Liabilities \$'000	15,608	1,753	688	2,593	20,642
	Assets \$'000	6,393	1,231	490	2,179	10,292
1964-65	Number . . .	2,453	128	13	110	2,704
	Liabilities \$'000	15,740	1,993	312	1,804	19,850
	Assets \$'000	6,127	1,129	129	1,365	8,749

BANKRUPTCY PROCEEDINGS: STATES AND TERRITORIES, 1960-61 TO 1964-65

Year		N.S.W. (a)	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
1960-61	Number . . .	868	489	253	468	206	81	3	2,368
	Liabilities \$'000	6,612	3,903	1,905	2,688	1,091	575	16	16,790
	Assets \$'000	4,685	2,596	1,451	1,392	655	251	11	11,041
1961-62	Number . . .	865	587	285	581	238	98	6	2,660
	Liabilities \$'000	6,520	4,813	2,641	3,512	1,727	612	57	19,882
	Assets \$'000	4,123	2,008	2,345	2,103	985	329	20	11,912
1962-63	Number . . .	872	625	258	617	241	119	3	2,735
	Liabilities \$'000	7,405	5,579	2,240	2,920	2,371	844	24	21,383
	Assets \$'000	3,945	3,363	1,425	1,586	2,141	333	1	12,793
1963-64	Number . . .	772	631	271	629	241	128	6	2,678
	Liabilities \$'000	7,774	5,993	1,800	3,291	1,142	545	97	20,642
	Assets \$'000	3,192	2,647	1,609	2,009	509	264	61	10,292
1964-65	Number . . .	798	613	255	633	308	96	1	2,704
	Liabilities \$'000	5,937	6,343	2,041	3,507	1,610	405	6	19,850
	Assets \$'000	2,829	2,088	1,165	1,879	598	190	..	8,749

(a) Includes the Australian Capital Territory.

Police

The primary duties of the police are to prevent crime, to detect and detain offenders, to protect life and property, to enforce the law, and to maintain peace and good order. In addition, they perform many duties in the service of the State, e.g., they act as clerks of petty sessions in small centres, as crown land bailiffs, foresters, mining wardens and inspectors under the fisheries and various other Acts. In metropolitan and large country areas they also regulate the street traffic. With the exception of the Commonwealth Police Force (*see* next page) and the police in the Northern Territory and the Australian Capital Territory, the police forces of Australia are under the control of the State Governments, but their members perform certain functions for the Commonwealth Government, such as acting as aliens registration officers and policing various acts and regulations.

Women police perform special duties at places where young women and girls are subject to moral danger, control traffic at school crossings and lecture school children on road safety. They also assist male police as required in the performance of normal police duties.

The strength of the police force in each State and Territory and the number of persons to each police officer are shown in the following table for the years 1961 to 1965. The figures include traffic and water police, probationers, cadets, special constables and women police, but exclude ancillary staff, viz., parking police, native trackers (Aboriginals employed in outlying districts in tracking lost persons and persons wanted by the police), female searchers, wardresses and interpreters, civilian staff, etc., viz., clerks, typists, artisans, cleaners, etc. Details of ancillary and civilian staff are provided separately. The figures of ancillary and civilian staff shown below vary from State to State because of administrative differences in the allocation to the police of certain functions such as parking control, motor registration and licensing.

STRENGTH OF POLICE FORCES: STATES AND TERRITORIES, 1961 TO 1965

30 June—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia
Total strength—									
1961	5,575	4,025	2,673	1,694	1,169	558	105	89	15,888
1962	5,687	4,127	2,748	1,727	1,164	579	125	101	16,258
1963	5,826	4,290	2,798	1,752	1,184	629	137	115	16,731
1964	5,977	4,389	2,818	1,830	1,260	598	149	135	17,156
1965	6,151	4,466	2,810	1,926	1,275	633	155	165	17,581
Population to each officer—									
1961	703	728	568	572	630	628	258	661	661
1962	699	725	561	573	648	617	222	650	659
1963	695	712	560	576	652	574	215	639	653
1964	689	713	564	564	627	609	217	596	649
1965	682	718	573	547	631	578	225	537	656
Number of police-women(a)—									
1961	58	58	9	35	14	10	5	2	191
1962	57	60	8	39	14	10	2	2	192
1963	57	58	7	39	15	10	6	2	194
1964	58	60	8	45	15	9	7	4	206
1965	57	58	11	42	18	10	6	4	206
Number of native trackers(b)—									
1961	5	1	17	(c)	4	..	31	..	58
1962	5	1	16	(c)	4	..	34	..	60
1963	5	1	14	(c)	4	..	30	..	54
1964	4	1	14	..	..	..	32	..	51
1965	2	1	12	..	..	..	34	..	49

(a) Included in total strength shown above. (b) Not included in total strength shown above. (c) One native tracker, who was paid a small weekly retainer and was supplied with rations, was continually on call.

Ancillary and civilian staff in the police forces at 30 June 1965 were as follows:

—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia
Ancillary—									
Full time	130	5	19	121	..	..	36	..	311
Part-time . . . .	..	..	..	4	23	..	..	..	27
Civilian—									
Full time	478	1,135	198	72	150	65	9	17	2,124
Part-time . . . .	..	46	11	6	..	7	..	1	71

Commonwealth Police Force

The Commonwealth Police Force commenced operations on 21 April 1960, and is the principal agency for the enforcement of the laws passed by the Commonwealth Parliament. It is also responsible for the protection of Commonwealth property and interests at various buildings and establishments under the control of the Commonwealth. This force co-ordinates the work of other Commonwealth investigation and law enforcement agencies and acts on behalf of the United Nations Organization for the suppressing of traffic in women and the suppression of obscene literature.

Under the control of the force is the Australian Police College at Manly, New South Wales, which provides training for officers of various police forces and other agencies in Australia and New Zealand. The force has its Head Office in Canberra and District Offices in each Capital City. The strength of the force at 30 June 1965, was 630 policemen and 3 policewomen. At that date there were, in addition, 3 ancillary and 71 civilian employees.

Prisons

Prisons and prison accommodation

The table below shows the number of prisons in each State and the Northern Territory and the accommodation therein at 30 June 1964.

PRISONS AND PRISON ACCOMMODATION: STATES
AND NORTHERN TERRITORY, 1964

—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Australia
Prisons	18	13	7	14	19	1	2	74
Accommodation : . . .	3,100	2,330	1,049	1,015	1,026	404	97	9,021

There is no gaol in the Australian Capital Territory, but there is a lock-up attached to the police station at Canberra and another lock-up at Jervis Bay where offenders are held while awaiting trial or serving short sentences not exceeding one week imposed by a magistrate's court. Long-term prisoners from the Australian Capital Territory normally serve their sentences in New South Wales prisons.

Convicted prisoners

The number of convicted prisoners at 30 June of each of the years 1960 to 1964 and the proportion per 10,000 of the population are shown in the following table.

CONVICTED PRISONERS: STATES AND TERRITORIES, 1960 TO 1964

30 June—	N.S.W. (a)	Vic.	Qld	S.A.	W.A.	Tas.	N.T. (b)	Australia
Number—								
1960	2,903	1,678	865	570	526	195	26	6,763
1961	3,090	1,827	877	592	526	237	41	7,190
1962	3,052	1,844	843	658	573	207	49	7,226
1963	3,050	1,942	879	688	640	231	48	7,478
1964	3,093	1,981	796	658	662	232	49	7,471
Per 10,000 of population—								
1960	7.5	5.9	5.8	6.0	7.3	5.7	10.2	6.6
1961	7.8	6.2	5.8	6.1	7.1	6.8	15.1	6.9
1962	7.5	6.1	5.4	6.6	7.6	5.7	17.6	6.7
1963	7.4	6.3	5.5	6.8	8.3	6.3	16.3	6.8
1964	7.5	6.3	6.0	6.3	8.3	6.3	15.1	6.7

(a) Includes the Australian Capital Territory.

(b) Excludes full-blood Aborigines.

Patents, trade marks and designs

Patents

Patents for inventions are granted under the *Patents Act* 1952–1962, which applies to the Commonwealth of Australia and the Territories of Norfolk Island, Papua and New Guinea. The Act is administered by a Commissioner of Patents. The principal fees payable up to and including the grant of a patent amount to \$39. Renewal fees are payable as follows: \$10 before the expiration of the fourth year, and an amount progressively increasing by \$2 before the expiration of each succeeding year up to the final fee of \$32, payable before the expiration of the fifteenth year. An extension of time for six months for payment of a renewal fee may be obtained.

PATENTS: AUSTRALIA, 1961 TO 1965

—	1961	1962	1963	1964	1965
Applications	12,901	13,026	13,051	14,134	15,150
Applications accompanied by					
provisional specifications	3,919	3,710	3,557	3,603	3,783
Letters patent sealed	4,940	3,866	5,361	5,456	7,277

Trade marks and designs

Under the *Trade Marks Act* 1955–1958 the Commissioner of Patents is also Registrar of Trade Marks. Provision is made for the registration of users of trade marks and for their assignment with or without the goodwill of the business concerned. A new classification of goods was adopted in 1958, and trade marks registered under repealed Acts are reclassified on renewal. Under the *Designs Act* 1906–1950 the Commissioner of Patents is also Registrar of Designs.

TRADE MARKS AND DESIGNS: AUSTRALIA, 1961 TO 1965

—	1961	1962	1963	1964	1965
Trade Marks—					
Received	6,209	5,920	6,411	6,280	6,583
Registered	4,592	3,558	4,224	3,606	3,256
Designs—					
Received	1,413	1,392	1,425	1,572	1,567
Registered	1,522	1,064	1,251	1,287	1,260

Copyright

Copyright is regulated by the *Commonwealth Copyright Act* 1912–1963 wherein, subject to modifications relating to procedure and remedies, the British Copyright Act of 1911 has been adopted and scheduled to the Australian law. The Act is administered by the Commissioner of Patents.

Reciprocal protection of unpublished works was extended in 1918 to citizens of Australia and of the United States of America, under which copyright may be secured in the latter country by registration at the Library of Congress, Washington. The Commonwealth Government promulgated a further Order-in-Council which came into operation on 1 February 1923 and extended the provisions of the Copyright Act to the foreign countries of the Copyright Union, subject to the observance of the conditions contained therein.

COPYRIGHT: AUSTRALIA, 1961 TO 1965

—	1961	1962	1963	1964	1965
Applications lodged	1,153	1,162	1,265	1,360	1,438
Applications registered	1,042	1,224	1,146	1,275	1,277

Cost of administration of law and order**Expenditure by the States**

The tables following show the net expenditure (i.e., gross expenditure less receipts from fees, fines, recoups for services rendered, etc.) from Consolidated Revenue during 1964–65 in connection with the administration of justice, police and prisons in each State. The figures exclude Loan Fund expenditure, and expenditure on debt charges, pay-roll tax and superannuation payments. Because of differing legislative and administrative arrangements in the various States, the activities covered by the figures shown are not exactly the same in each State. Small differences also result from differing accounting practices. However, the figures shown for individual States are comparable from year to year.

STATE NET EXPENDITURE ON LAW AND ORDER, 1964-65

State	Net expenditure			Per head of population		
	Justice	Police	Prisons (a)	Justice	Police	Prisons
	\$'000	\$'000	\$'000	\$	\$	\$
New South Wales . . .	4,611	21,534	4,625	1.11	5.18	1.11
Victoria	560	18,010	2,458	0.18	5.68	0.78
Queensland	488	11,038	1,232	0.30	6.91	0.77
South Australia	—1,126(b)	6,561	1,106	—1.07	6.29	1.06
Western Australia . . .	486	4,873	726	0.61	6.11	0.91
Tasmania	530	2,322	488	1.44	6.31	1.32
Total	5,549	64,338	10,633	0.50	5.78	0.96

(a) Excludes expenditure on reformatories which for 1964-65 amounted to: N.S.W., \$945,389; Vic., n.a.; Qld, \$97,656; S.A., \$306,002; W.A., \$463,226; Tas., \$157,810. (b) Receipts for fines, legal fees and registrations exceed expenditure.

STATE NET EXPENDITURE ON LAW AND ORDER
AUSTRALIA, 1960-61 TO 1964-65

(\$'000)

Year	Justice	Police	Prisons(a)
1960-61	3,467	50,213	7,375
1961-62	5,253	52,977	8,153
1962-63	5,845	55,450	8,248
1963-64	5,508	60,051	8,462
1964-65	5,549	64,338	10,633

(a) Excludes expenditure on reformatories which for the years 1960-61 to 1964-65 amounted to: 1960-61, \$1,989,826; 1961-62, \$2,207,744; 1962-63, \$2,415,112; 1963-64, \$2,944,662; 1964-65, \$1,970,083. Expenditure on reformatories in Victoria is not included in these amounts.

Commonwealth expenditure

Since the functions of the Commonwealth Government in the administration of law and order differ considerably from those of the States, precise comparison between Commonwealth and State expenditure in this field is not possible. The following table shows expenditure by the Commonwealth Government during the year 1964-65 on the services it performs in relation to law and order.

COMMONWEALTH EXPENDITURE ON LAW AND ORDER, 1964-65

(\$'000)

	Gross expenditure	Receipts	Net expenditure
Justice—			
Administration	994	231	763
Bankruptcy	618	480	138
Crown Solicitor's Office	1,217	..	1,217
High Court	248	..	248
Judges' salaries and pensions	206	..	206
Rent	210	..	210
Court reporting	466	256	209
Territory courts	461	269	193
Repairs and maintenance	78	..	78
Total, justice	4,498	1,236	3,262

COMMONWEALTH EXPENDITURE ON LAW AND ORDER, 1964-65—continued
 (\$'000)

	Gross expenditure	Receipts	Net expenditure
Police—			
Commonwealth Police Force	1,062	..	1,062
Australian Police College	71	..	71
Australian Security and Intelligence Organization	1,920	..	1,920
Northern Territory Police	835	..	835
Australian Capital Territory Police	761	..	761
<i>Total, police</i>	<i>4,650</i>	<i>..</i>	<i>4,650</i>
Prisons—			
Northern Territory prisons	194	..	194
<i>Total, prisons</i>	<i>194</i>	<i>..</i>	<i>194</i>
Total, law and order	9,342	1,236	8,106

The preceding table replaces one included in previous issues showing expenditure by the Commonwealth Attorney-General's Department. This table deals more precisely with the function of law and order than did the previous table, and excludes some items of expenditure, previously included, such as conciliation and arbitration and matrimonial causes, which are considered to relate to functions other than law and order.

COMMONWEALTH EXPENDITURE ON LAW AND ORDER
1960-61 TO 1964-65
 (\$'000)

Year	Gross expenditure	Receipts	Net expenditure
1960-61	6,024	752	5,271
1961-62	6,482	823	5,659
1962-63	7,150	946	6,203
1963-64	8,280	1,220	7,061
1964-65	9,342	1,236	8,106

CHAPTER 17

PUBLIC HEALTH

STATE GOVERNMENT ACTIVITIES

(Includes activities of the Commonwealth Government in the Northern Territory and the Australian Capital Territory)

Public health legislation and administration

New South Wales

The New South Wales Ministry of Health, which is under the control of the Minister for Health, embraces the Department of Public Health, the Hospitals Commission, and a number of boards, committees and other authorities concerned with health, hospitals and associated services. The *Department of Public Health* undertakes a variety of activities concerned with the prevention of disease and the promotion of the public health of the community. Many of its activities are administered by Medical Officers of Health in the eight health districts into which the State is divided. The principal activities of the Department are described below.

The Bureau of Maternal and Child Health has established pre-natal clinics (for expectant mothers living long distances from obstetric hospitals), baby health centres (where mothers are instructed in the care and management of babies), and paediatric clinics (for pre-school children). It controls the school medical and dental services (see page 555). Assistance with the control of staphylococcal infection and the care of premature babies is given to obstetric hospitals and medical practitioners. Mobile transfusion units for maternity cases have been organized, and a free consultant service is available to medical practitioners who want specialist advice in difficult obstetric cases. A special medical committee investigates every maternal death occurring in the State.

The Division of Occupational Health is concerned with all health problems associated with industry. Some of the more important aspects with which the Division is concerned are the effects of toxic substances in industry and pesticides in agriculture, the suitability of protective devices, ergonomics and radiation hazards. The Division is also concerned with the industrial and residential aspects of noise and air pollution.

Infectious diseases. Many diseases have been proclaimed as infectious diseases, and cases of these diseases must be notified by medical practitioners to the public health authorities. *The Division of Tuberculosis* co-ordinates measures for the prevention, detection and cure of tuberculosis, regulates the admission of patients to institutions, arranges for the treatment of patients not in institutions, and assesses the medical eligibility of applicants for Commonwealth tuberculosis allowance. The Department has directed the anti-poliomyelitis campaign in New South Wales and is responsible for the distribution of Salk poliomyelitis vaccine. It also administers the Venereal Diseases Act and conducts an examination and treatment clinic for men.

Psychiatric services. The Department supervises the care, treatment, and control of persons suffering from mental disorders, and conducts fourteen psychiatric hospitals for those with mental disorders, and a diagnostic centre for mentally retarded children.

Hospital services. The Health Department supervises the operation of private hospitals and rest homes, which must be licensed under the Private Hospitals Act and must comply with regulations as to structure, management and inspection of premises. The Department also maintains four State hospitals and homes, which provide care and treatment for the aged and those chronically ill.

Miscellaneous activities. The Department maintains laboratories which provide diagnostic and analytical services for governmental authorities and private bodies. It administers the pure Food Act (which prescribes standards of quality and purity for food products) and laws relating to sanitation. It also supervises the work of local government authorities relating to public health matters.

The Hospitals Commission supervises the public hospital services, which are organized in terms of the Public Hospitals Act.

The public hospitals and organizations which provide district and bush nursing services and aerial medical services are classified by the Public Hospitals Act into two main groups. One group, termed the *incorporated hospitals*, consists entirely of hospitals incorporated under the Act. The second group, known as *separate institutions*, includes hospitals incorporated under special Acts of Parliament, hospitals conducted under the aegis of religious organizations, and hospitals registered under the Companies Act as non-profit organizations. Most of the incorporated hospitals are managed by a board of directors appointed by the Governor, but the management of the hospital is subject to inspection by the Hospitals Commission. The Commission determines which hospitals are to be subsidized and the amount of subsidy to be paid to each institution.

Other State authorities concerned with health, hospital and associated services in New South Wales include the Master in the Protective Jurisdiction of the Supreme Court (who controls and administers the estates of patients in psychiatric hospitals), the Ambulance Transport Service Board (which supervises district ambulance services throughout the State), boards established for the registration of practitioners in certain professions (chiroprody, dental, medical, nursing, optometry, optical dispensing, pharmacy and physiotherapy), the State Cancer Council (for cancer education and research), and various boards and committees (e.g. the Board of Health, the Poisons Advisory Committee and the Air Pollution Advisory Committee).

Victoria

All health, hospital and associated services either administered directly or supported financially by the Government are under the control of the Minister of Health. The *Department of Health*, set up under the *Ministry of Health Act 1943*, assists the Minister in carrying out the various duties imposed upon him by a variety of Acts associated with health. The Department includes four main service branches—the General Health Branch, the Maternal and Child Welfare Branch, the Tuberculosis Branch, and the Mental Hygiene Branch.

The *General Health Branch* which, *inter alia*, is the administrative branch for the Commission of Public Health, protects or promotes the health of the community in the following ways. The Engineering Division scrutinizes from a public health point of view the plans of all public buildings and provincial sewerage installations and makes periodical inspections. Other activities include prevention of air pollution from industrial sources, prevention of stream pollution, and supervision of abattoirs and cattle sale yards. The Poliomyelitis Division provides a comprehensive orthopaedic, physiotherapy, and respirator service for all eligible patients and carries out rehabilitation in conjunction with the Commonwealth Government. Facilities developed for poliomyelitis are now being used for other neurological disorders. The Division is also concerned with the Salk immunization campaign being undertaken in Victoria. Through the municipalities, immunization against poliomyelitis, diphtheria, smallpox, whooping cough and tetanus is encouraged and supervised. Prevention and control of infectious diseases are functions of this Branch, which also sponsors original research into virus diseases and epidemiological investigations throughout Victoria. The Venereal Diseases Division provides a centrally situated headquarters where the use of modern remedies is effecting a general improvement in the standard of treatment. Standards of quality and purity of foods and drugs are fixed by the Food Standards Committee and are administered and enforced by both departmental and municipal health inspectors. Investigations into occupational hazards to the health of workers, the treatment and incidence of occupational diseases, and research into the effects of toxic substances used in industry are conducted by the Industrial Hygiene Division. The Poisons Control Division is responsible for administering the law relating to poisons and deleterious substances. Legislation provides for extensive control, particularly at the wholesale (manufacturing and import) level. Control is exercised by a system of licences and permits.

Subsidies are granted to municipalities to provide meals for pensioners, to clubs for elderly citizens, and to emergency housekeeper services. Other services operated by the Branch are: registering plumbers and gasfitters; providing free travel to hospital for people with limited incomes; analysing food, drink, water and sewerage effluents; registering cinematograph operators; administering the Cemeteries Acts; and advising industry on health hazards associated with handling radio-active substances.

The *Maternal and Child Welfare Branch* is concerned with pre-natal hygiene, infant welfare, the development of pre-school services, and the school medical and dental services.

The *Tuberculosis Branch* is concerned with the prevention of tuberculosis and the treatment and rehabilitation of tubercular patients. It controls the compulsory chest X-ray programme introduced in October 1963.

The *Mental Hygiene Branch* is controlled by the Mental Health Authority, appointed in 1951, and consists of institutions for in-patient care, out-patients' clinics and other services necessary for a comprehensive community mental health programme.

The *Victorian hospital system* comprises both public and private hospitals. Since their inception in 1846, Victorian public hospitals have maintained a distinctive pattern. Firstly, they are managed by autonomous committees elected by contributors—following closely the practice applying in the United Kingdom prior to the introduction of the National Health Service. Secondly, they have received financial assistance by way of Government subsidies. With rising costs, this has steadily increased in amount and proportion. At present, hospitals in Victoria derive some seventy per cent of their income from Government sources. Thirdly, medical staffing has followed the pattern of honorary service. In recent years this has been supplemented by salaried doctors employed in university teaching and hospital departments.

Patients are broadly separated into two groups according to an income test. Those earning below a determined level of income are eligible for public hospital care at a fee of approximately half the actual cost; medical care is free through the honorary system. Those patients whose incomes are above the level prescribed, are required to pay intermediate or private hospital accommodation charges at higher rates, but only rarely does the charge cover cost; they must, in addition, meet medical fees.

The *Hospitals and Charities Commission* was established by the 1948 Hospitals and Charities Act as the authority, under the Minister of Health, for the payment of State Government subsidies to public hospitals and other registered charitable organizations. It exercises a close scrutiny of all these organizations, particularly their financial activities. The Commission also has responsibility for co-ordinating hospital and institutional activities throughout the State. In country areas inter-hospital co-operation has led to the development of a regional organization to give specialized services at a reasonable cost. Pathology, radiology, blood banks and various types of therapy are provided from base hospitals to the smaller local hospitals with staff available on a visiting or consultant basis. Equipment is sent to small hospitals as they need it. This system has considerably improved the standard of medical services available in the country areas. The scheme also embraces central laundry and linen service, and engineering service to small hospitals.

The Commission co-operates with universities in developing teaching hospital programmes. Nine general and special teaching hospitals are established. These are affiliated with medical schools of the University of Melbourne and Monash University. Expansion of these teaching facilities is still progressing, with major work currently in progress at all hospitals. Discussions are advanced concerning the establishment of the tenth teaching hospital, which is to be erected on Monash University Campus.

Attention is given to the medical and social care of the aged. Emphasis has been placed upon the development of geriatric units, rehabilitation services, hostels for the aged, day hospitals and supporting domiciliary services.

There are more private than public hospitals in Victoria, but they are smaller in size. Their bed capacity is about thirty per cent of the total hospital accommodation available to the community. The Hospitals and Charities Commission registers these hospitals and ensures that adequate architectural, staffing and nursing standards are maintained. Medical, surgical, midwifery, convalescent and chronic patients are accommodated in various private hospitals.

The Commission's authority covers the ambulance services in Victoria. Here again emphasis has been placed upon the development of regional services in all areas of the State. This has resulted in a scheme developed along lines similar to that operating among hospitals; however, individual ambulance stations have been merged into one regional controlling organization, whereas within the public hospital regional scheme each hospital still maintains its own autonomy. This type of ambulance organization leads to low operating costs and high standards of staff and equipment. A recent development is an air ambulance service which provides an emergency service for all areas of the State, enabling seriously ill patients to be transported to major metropolitan hospitals with minimum delay and inconvenience.

Queensland

'The Health Acts 1937 to 1964' are administered by the Director-General of Health and Medical Services, subject to the Minister for Health. A central staff controls the following divisions.

The *Division of Public Health Supervision* is controlled by the Deputy Director-General of Health and Medical Services, and comprises separate sections for communicable disease control, environmental sanitation, food and drug control, enthetic (venereal) diseases, hookworm control and Hansen's disease (leprosy) control. Free treatment of venereal diseases is offered at the Department's clinics in Brisbane and at any public hospital. Free immunization against poliomyelitis, diphtheria, whooping cough, tetanus and smallpox is offered by most of the local authorities, and the majority of school children are immunized against diphtheria, whooping cough, tetanus and poliomyelitis.

The *Division of Tuberculosis* controls a central chest clinic in Brisbane which offers skin tests, X-ray examinations and B.C.G. vaccination of skin negative reactors free of charge. Similar clinics are situated at the Cairns, Rockhampton, Thursday Island, Toowoomba, and Townsville

district hospitals. Children in the eighth grade of school are skin tested and given B.C.G. vaccine. The compulsory X-ray examination of all persons over the age of fourteen years is proceeding. The survey of residents of the metropolitan area has been completed, and a second survey of country areas has covered the State north of Maryborough.

The services of the *Division of Industrial Medicine* are available both to industry and to the trade union movement for the prevention of industrial hazards. The Division is particularly interested in occupational diseases, such as silicosis and lead and other poisoning, and advises on industrial problems such as lighting, ventilation, fatigue, hearing loss and the use of radiation and radio-active isotopes.

The *Division of Maternal and Child Welfare* offers supervision and advice on the rearing and health of infants and pre-school children at 264 infant welfare centres throughout the State. Outlying centres are visited by air or by special rail car. Homes for in-patient treatment of infants with feeding problems have been established at Brisbane, Toowoomba, Ipswich and Rockhampton.

The *Division of School Health Services* comprises the Chief Medical Officer, School Health Services, and a staff of doctors, dentists and visiting school nurses. The dental officers inspect school children and carry out essential treatment at schools or in rail dental clinics. Medical examinations are made every one to two years.

In the *Division of Mental Health* the Director of Psychiatric Services is associated with the planned integration of services. Mentally ill persons requiring special care are admitted to the State's four special hospitals at Brisbane, Toowoomba, Ipswich and Charters Towers. In the metropolitan area of Brisbane out-patient, day hospital and in-patient care is provided by general hospitals and a community-based Psychiatric Clinic. The Brisbane General, Chermside, and Princess Alexandra Hospitals all provide psychiatric services. Regional development of services is based on general hospital services at Townsville, Rockhampton, Toowoomba and Ipswich. Special care for epileptics is provided at a home in Toowoomba.

The *Division of Welfare and Guidance* has clinics for the diagnosis and management of emotional and behaviour disorders in children in the Greater Brisbane Area. Further clinics are planned for Townsville and Toowoomba. A part-time clinic functions in Toowoomba at present. The Wilson Youth Hospital has been opened for the social and psychiatric rehabilitation of boys convicted in the Children's Court. About forty boys can be accommodated. There is an out-patient section which girls also can attend. A Child Guidance Unit for out-patients, day-hospital patients and thirty in-patients is being constructed in the grounds of the Brisbane Children's Hospital. A similar unit is at present being planned for Townsville.

It is the policy of the Department, through the *Division of Social Work*, to establish social work services, where possible, in all relevant aspects of the health, medical and hospital services. Through these services patients in hospitals and sick, elderly and disabled persons in the community may receive assistance with their personal and social problems. Social work departments have been established in the major hospitals in Brisbane and in four country hospitals, and social workers have been appointed to work in health, psychiatric and child welfare and guidance services. Development of this work is co-ordinated through the Division, and the Adviser in Social Welfare acts as official liaison with other State Government Departments as services relating to social work and family welfare are established.

The *Division of Geriatrics* controls a geriatric unit established at Princess Alexandra Hospital. The unit consists of two wards with accommodation for 128 in-patients, administration section, day hospital, and physio-therapy and occupational therapy departments.

The *Division of Laboratory Services* maintains two laboratories—the Laboratory of Microbiology and Pathology and the Government Chemical Laboratory—to ensure the purity of a wide range of foodstuffs and materials. The former also offers a service in clinical pathology to institutions, country hospitals and private doctors, and provides a medico-legal service for the whole State. A diagnostic virus laboratory has been established within the Laboratory of Microbiology and Pathology. The Institute of Forensic Pathology is controlled by the medical staff of the Laboratory of Microbiology and Pathology, and coroners' autopsies are conducted there.

All public hospitals in Queensland operate under the district system, which provides for the constitution of hospitals regions and hospitals districts, and a hospitals board for each district. The State is divided into twelve hospitals regions with a base hospital for each region. Each region comprises a number of hospitals districts, the purpose of the regional scheme being to co-ordinate the public hospitals in the region with the base hospital. The administration of the hospital services, including public dental services, in each hospitals district is vested in the hospitals board, which comprises not less than four nor more than eight members appointed by the Governor-in-Council, and one member elected by the component local authorities. During 1963-64 there were sixty hospitals boards controlling 134 public hospitals, nine of which treated

out-patients only. In addition, twenty-four other hospitals, six of which are treated as public hospitals, received aid from the Government, and an institution for the treatment of Hansen's disease in Aborigines was maintained at Fantome Island near Townsville. Other persons suffering from this disease are treated at an annexe of the Princess Alexandra Hospital, South Brisbane.

South Australia

The First Health Act in South Australia was passed in 1873. This Act, which was modelled on earlier English legislation, established a Central Board of Health, and a number of town councils were constituted as local boards. Regulations were concerned mainly with improved sanitation and the checking of 'epidemic, endemic and contagious diseases'. Amendments to this Act followed in 1876 and 1884, and a fourth Act, replacing earlier legislation, was passed in 1898. The present Health Act dates from 1935. Administration was continued under the authority of the Central Board of Health until 1949, when the Department of Public Health was formed to co-ordinate the work of the Board and other health activities.

The *Department of Public Health* embraces the activities of the Central Board of Health, the School Health Branch (including the Deafness Guidance Clinic), the Poliomyelitis Branch, the Food and Drugs Advisory Committee, the Radiological Advisory Committee, the Clean Air Committee, and also the public health aspects of the control of tuberculosis, including the chest clinic and the State X-ray health surveys. The Central Board of Health administers the Health, Food and Drugs, Dangerous Drugs, Noxious Trades, Bakehouse Registration, and Notification of Births Acts. The Board also has responsibilities under the Local Government Act and the Cremation Act. The Health Act and the Food and Drugs Act constitute every municipal or district council a local board of health or local authority for its area, except that in the metropolitan area the Metropolitan County Board (representing all metropolitan corporations) is the local authority under the Food and Drugs Act. The Central Board of Health acts as a supervisory body over all the 143 local boards under the Health Act, the Food and Drugs Act, and the Bakehouse Registration Act. It has concurrent jurisdiction with local boards. Outside the boundaries of local boards the Central Board is the administering authority.

The State Government conducts a chest clinic and a tuberculosis hospital in the metropolitan area. At the chest clinic patients are examined and treated, suspected cases are investigated, and contacts are advised of precautionary measures and periodically re-examined. The Morris Hospital, Northfield, which at 30 June 1964 had eighty-six beds, cares for the tuberculosis patients received from the chest clinic. The Kalyra Sanatorium at Belair is conducted by the James Brown Memorial Trust Inc. for tuberculosis sufferers. At 30 June 1964 there were seventy beds at the Sanatorium.

The *Hospitals Department* administers three general hospitals in the metropolitan area—Royal Adelaide Hospital, the Queen Elizabeth Hospital, and Morris Hospital (tuberculosis). In the country there are *government hospitals* at Port Pirie, Mount Gambier, Port Lincoln, Port Augusta, Wallaroo and Barmera. In addition there are fifty *other hospitals* in country areas conducted by local boards of management, which receive maintenance subsidies from the State Government and come under the general supervision of the Hospitals Department. The Mental Health Services, a division of the Hospitals Department, is responsible for the management of public psychiatric services.

There are several large *private hospitals* in the metropolitan area, including Calvary Hospital, the Memorial Hospital and St. Andrew's Presbyterian Hospital, all of which are run by denominational bodies. Another large institution is the Home for Incurables at Fullarton, which provides accommodation and nursing attention for persons suffering from chronic disease.

Western Australia

The central health authority is the *Department of Public Health*, administered by a Commissioner who must be a medical practitioner. The Commissioner is responsible for the administration of several important Statutes, including the Health Act, Radioactive Substances Act, Poisons Act, Clean Air Act, Anatomy Act and Cremation Act.

The Health Act is comprehensive in scope. In the administration of its general sanitary provisions, including the registration of lodging houses, eating houses and offensive trades, local health authorities are subject to the overriding authority of the Commissioner. The Act provides for the construction of sewerage schemes in certain areas and confers on the Commissioner the powers necessary for the registration of private hospitals, the licensing of maternity homes and the supervision of the construction and safety of public buildings. Infectious diseases are notifiable under the Act, and the Commissioner is empowered to isolate infected persons. The Maternal Mortality Committee, which was constituted under the Act, is given statutory power to investigate the circumstances of each maternal death.

In 1965 the Department took over the administration of the Poisons Act from the Pharmaceutical Council. The existing Statute provides for all poisons to be classified in eight schedules closely conforming to the recommendations of the National Health and Medical Research Council.

The Department has several major branches comprising the Public Health Laboratories, the Child Health Services, the School Medical and Dental Services, and the Tuberculosis Control Branch.

A special feature of the Department's administration is the existence of a State Health Council. This Council is non-statutory and comprises representatives of all major groups within the medical profession, including nominees of the Faculty of Medicine of the University of Western Australia. The Council's advice is sought on many matters of professional and public health importance. It has four standing committees—the Hospital Requirements Committee, the Mental Health Committee, the Dental Health Committee and the Maternal and Infant Health Committee.

Government and government-assisted hospitals in Western Australia operate under the *Hospitals Act, 1927-1955*, which is administered, subject to the direction of the Minister for Health, by the Medical Department. For administrative purposes a hospital under the direct control of the Medical Department is classified as 'departmental' and is financed from State funds. A hospital classified as a 'Board' hospital has its own board of management and is subsidized by the State Government. In all, forty departmental and fifty-three Board hospitals were located throughout the State at 30 June 1965.

In addition to the government hospitals there are a number of *private general and maternity hospitals* which are registered and inspected by the Department of Public Health. The principal private hospitals are those established by religious bodies in the metropolitan area and the main country towns.

All *mental hospitals* in Western Australia are administered by a Director of Mental Health Services responsible to the Minister for Health. In addition to the major mental hospitals there are day hospitals, out-patient clinics and a child guidance clinic. A new Mental Health Act is expected to come into force during 1966.

Tasmania

The *State Department of Health Services* is under the jurisdiction of the Minister for Health, with the Director-General of Health Services as the permanent head. The Headquarters of the Department controls three Divisions, each under a Director, namely, Public Health, Psychiatric Services, and Tuberculosis. Two specialized services are also part of the Department, namely, the State Health Laboratory under the control of the Director of Pathology and the Government Analyst and Chemist Laboratory under the control of the Government Analyst.

Headquarters Division. The responsibilities of this Division of the Department of Health Services include the public hospital services and the licensing of private hospitals and other medical establishments under the *Hospital Act 1918*; the District Medical Service; Geriatric Services; the School Dental Service; the Tourist and District Nursing Services; legislation concerned with health and allied matters; the Nurses' Registration Board and Dental Mechanics' Registration Board; some specialist medical services; the statistical classification of public hospital morbidity and mortality; the State Drug Advisory Committee; liaison with the Health Departments of other States and the Commonwealth; the Hospital Employees' Award, the Medical Officers' Award, and the Nurses' (Public Hospitals) Award; the control and maintenance of Crown property occupied by various sections of the Department; and the appointment and salaries of staff who are not officers of the Public Service.

The *Division of Public Health* has responsibility for the preventive medical services of the State. The Director is responsible for the operation of the *Public Health Act 1957* and the control of medical officers of health and other health officers employed by the Department and by municipalities throughout the State. A major responsibility is public immunization campaigns, conducted through the municipal councils (preparations distributed include the Salk and Sabin anti-poliomyelitis vaccines and the Triple Antigen vaccines against whooping cough, tetanus and diphtheria). The Division is also responsible for the Child Health Service, the School Medical Service, the Mothercraft Home, the Health Education Council, the Nutrition Advisory Service, industrial hygiene, environmental sanitation, pure food and pure drug quality control, public health aspects of the building regulations, infectious diseases control, and the National Fitness service.

The *Division of Psychiatric Services* controls the major psychiatric rehabilitation hospitals and provides regional clinical psychiatric facilities and the specialists employed, including social workers. Some services operate at the general hospitals, while others, such as the child psychiatric unit and the alcoholic rehabilitation service, are established separately. Day hospital facilities are available, and a clinic is maintained at the Division of Public Health in Hobart. The *Mental Health Act 1963* superseded previous legislation and is based on the modern theory that a mental health institution should be a true hospital, where the majority of patients attend voluntarily and where there should be a high turn-over of short-stay patients who are given intensive treatment. Application of this principle has had the effect of reducing the number of patients compulsorily detained from about 75 per cent of the total psychiatric hospital patient population to about 25 per cent.

The *Division of Tuberculosis* is concerned with the prevention of tuberculosis in the State. It administers compulsory mass chest X-ray services throughout the State, four chest clinics and two chest hospitals.

The *State Health Laboratory* provides certain pathological services to hospitals and doctors and special bacteriological and cytological services in connection with public health and the anti-cancer campaign.

The *Government Analyst and Chemist Laboratory* is a public laboratory for the chemical analysis of a wide variety of foods, drugs and other substances and undertakes work for Government Departments and the public.

State controlled hospitals, for which the State accepts the major financial responsibility, are controlled either directly or through Hospital Boards each consisting of seven members, of whom five are appointed by the Minister. They include four general hospitals, sixteen district hospitals, twelve district nursing centres with bed accommodation, two mental hospitals, two maternity hospitals, two chest hospitals, and three homes for the aged. Under the 'personal patient' scheme a patient in a State-controlled hospital may have his own doctor, if the latter is an honorary doctor at the hospital, for the payment of an additional fee.

Private hospitals are operated by church and other private organizations. There are seven licensed to receive surgical, medical or maternity cases. Nursing homes and rest homes are institutions which do not conform to private hospital specifications with regard to equipment, construction and staffing, as laid down under the Hospitals Act, and treat general cases within limits as specified in the licence. There are thirty-three private institutions concerned with aged people, two for those with incurable or chronic illnesses, two for general convalescence, and two for retarded children.

The *Ambulance Commission of Tasmania* co-ordinates ambulance services through four Ambulance Boards and is responsible to the Minister for Health for seeing that they operate effectively. The Royal Flying Doctor Service was established in 1960 and operates with the ambulance services to bring remote patients to the Royal Hobart or Launceston General Hospitals.

Northern Territory

The *Commonwealth Department of Health* provides health services in the Northern Territory which include hospital, medical and dental services.

Four general hospitals have been established, and at 31 December 1965 the available accommodation for in-patients was as follows: Darwin Hospital, 316; Alice Springs Hospital, 153; Katherine Hospital, 52; and Tennant Creek Hospital, 35. The treatment of Hansen's disease (leprosy) is carried out at East Arm Settlement. A full range of ancillary services is available at the Darwin hospital, which serves as a base hospital for the Territory. Dental clinics have been set up at Darwin and Alice Springs.

Medical and dental services to outback areas are provided by road and air. The Department of Health has two De Havilland Dove aircraft stationed at Darwin and one at Alice Springs. They are staffed and serviced by Trans-Australia Airlines and are extensively used in ambulance and survey medical work. At Alice Springs medical officers of the Department of Health provide the medical services to the Royal Flying Doctor Service (South Australian base). Public health services are provided, and health inspectors visit all settlements periodically. A section of the Department of Health undertakes continuous investigations into native health.

Australian Capital Territory

The *Public Health Ordinance 1928-1951* places under the control of the Minister for Health matters relating to public health and hygiene in the Australian Capital Territory. In addition to the public health activities normally undertaken by the State Governments, the Commonwealth Department of Health undertakes certain duties which in the States would be the responsibility of local government instrumentalities.

A medical officer of health and a staff of six health inspectors have been appointed to administer the Public Health Ordinance and ancillary regulations. During 1965, 1,037 licences were issued under various public health regulations, and legal action was taken in fourteen cases for offences against these regulations. The inspection staff is responsible for the quarantine inspection of parcels arriving under bond at the Canberra Post Office, and, in addition, the inspection of plants and animals and the disposal of refuse from aircraft in Canberra as the first port of entry into Australia.

In continuation of the campaign to control the incidence of poliomyelitis, the Department of Health in Canberra during 1965 gave 7,507 injections of poliomyelitis vaccine to infants, 1,206 to school children, and 898 to adults.

The *Commonwealth Health Laboratory* in Canberra provides full clinical laboratory services to the Canberra Community Hospital and to private medical practitioners in the Australian Capital Territory. During 1965 pathological services were performed in connection with chemical and bacterial analyses of water, milk, other foods, and sewage, and tests of 88,152 human specimens were carried out.

The *Canberra Community Hospital* is administered, subject to the Minister for Health, by a board consisting of five elected members and three members appointed by the Minister. At 30 June 1965 the hospital had accommodation for 454 in-patients.

The *Canberra Mothercraft Society*, which is subsidized by the Commonwealth Department of Health, administers the Infant Welfare Service in Canberra with a staff of nine triple-certificated nurses. The Queen Elizabeth II Coronation Home for Mothers and Babies, which is under the management of the Society, was opened on 7 January 1963. It is staffed by qualified nursing staff and provides post-natal care for mothers and problem babies. The Home has accommodation for two mothers and nine babies.

The Director of the *Tuberculosis Division* of the Commonwealth Department of Health, in addition to the responsibility of co-ordinating the activities of the States in the national campaign against tuberculosis, is concerned with the prevention, detection, examination and treatment of tuberculosis in the Australian Capital Territory. In 1965 eleven cases of tuberculosis were notified in the Australian Capital Territory.

A district nursing service, administered by the Commonwealth Department of Health, was established in 1950 to provide a home-nursing service for the sick and aged. This service, available at the request of a registered medical practitioner, is provided by fifteen sisters, who in 1965 made 39,989 visits.

The supervision of the hygiene of dairies and piggeries and the control of the Canberra Abattoir is the responsibility of the veterinary service of the Department of Health. The duties of this service also include the prevention and control of disease in stock and advice to district stock owners, with field diagnosis on a herd or flock basis supported by laboratory confirmation.

Supervision and care of infant life

Because the health of mothers and infants depends largely on pre-natal attention as well as after-care, government, local government and private organizations provide instruction and treatment for mothers before and after confinement. The health and well-being of mother and child are looked after by infant welfare centres, baby clinics, crèches, etc.

In all States, Acts have been passed with the object of supervising the conditions of infant life and reducing the rate of mortality. (Information regarding infant mortality will be found in the chapter Vital Statistics—see pages 254-8.) Departments control the boarding-out of the wards of the State to suitable persons. Wherever possible the child is boarded out to its mother or to a near female relative. Stringent conditions regulate the adoption, nursing and maintenance of children placed in foster-homes by private persons, while special attention is devoted to the welfare of ex-nuptial children.

Under the provisions of the *Social Services Act 1947-1965* maternity allowances are paid to provide financial assistance towards the expenses associated with the birth of children. A sum of \$30 is payable to the mother in respect of each confinement at which a living or viable child is born if the mother has no other children under sixteen years of age. Where there are one or two other children under sixteen, the amount payable is \$32, and where there are three or more other children under sixteen, the amount payable is \$35. Where more than one child is born at a birth, the amount of the allowance is increased by \$10 in respect of each additional child. More detailed information concerning maternity allowances is given in the chapter Welfare Services.

Nursing activities

Several State Governments maintain institutions which provide treatment for mothers and children, and, in addition, subsidies are granted to various associations engaged in welfare work.

Infant welfare centres. The following table gives particulars of the activities of infant welfare centres for the year 1965. The figures relate to all centres, whether permanently staffed or on a temporary or part-time basis. Centres may be located at accommodation specially provided for this purpose or at halls, schools, etc.

INFANT WELFARE CENTRES: STATES AND TERRITORIES, 1965

—	N.S.W.	Vic.	Qld (a)	S.A. (a)	W.A.	Tas.	N.T.	A.C.T.	Aust.
Number of centres .	424	667	264	268	72	105	16	31	1,847
Attendances at centres	1,079,549	1,383,407	451,951	256,206	231,191	137,276	17,129	42,072	3,598,781
Visits by nurses to homes	n.a.	176,139	30,631	33,844	26,483	80,058	6,910	4,759	n.a.

(a) Year ended 30 June 1965.

Mobile units are used as centres in some States. The numbers of these in 1965 included in the above table were as follows: Victoria, 5; Queensland, 2; South Australia, 4; Western Australia, 4; and Tasmania, 11.

In the last thirty years the number of attendances at the infant welfare centres has quadrupled. The numbers of attendances at five-year intervals since 1930 were as follows: 1930, 919,893; 1935, 1,355,306; 1940, 2,035,299; 1945, 2,927,764; 1950, 3,049,375; 1955, 3,099,233; and 1960, 3,482,383.

Bush Nursing Associations. Treatment for mothers and children is also provided by the Bush Nursing Associations. The number of centres maintained by the Associations in 1965 were: New South Wales, 18; Victoria, 57; Queensland, 5; South Australia, 33; Western Australia, 15; and Tasmania, 24.

Medical inspection of school children

Medical and dental inspection of school children is carried out in all States, in the Northern Territory and in the Australian Capital Territory. In some States travelling clinics have been established to deal with dental defects.

New South Wales

The school medical and dental services in New South Wales are under the control of the State Department of Public Health. The staff of the school medical service in June 1965 included sixty-two medical officers, eleven psychiatrists, ten part-time ear, nose and throat surgeons, an ophthalmologist, seventeen clinical psychologists, eighty-one nurses, sixteen social workers, and twenty-two speech therapists.

The aim of the school medical service is to examine all school children in the State in order to discover any departure from normal health, physical or mental, and to notify the parent or guardian of any need for further investigation or treatment. Annual visits are made to schools in the metropolitan, Newcastle, and Wollongong areas, and in some of the larger country towns. Full examinations are conducted on a child's entry into school. Review examinations, with particular emphasis on vision and hearing, are conducted on pupils in fourth class in primary schools and second and fourth years in secondary schools, and on others who appear to need additional examinations. Medical officers of this service examined 199,166 children in 1965. In other country areas there is a scheme for school children to be examined by local medical practitioners under the supervision of local municipal and shire councils.

The school medical service conducts ten child guidance clinics (nine in the metropolis and one at Newcastle), eight child health centres (seven in the metropolis and one at Newcastle), ten hearing clinics (eight in the metropolis, one at Newcastle and one at Wollongong), and an asthma clinic in Sydney.

In June 1965 the school dental service had a staff of thirty-four dental officers, thirty dental assistants, and six dental nurses. The service is provided by dental clinics established in the grounds of three metropolitan and two country public schools, eighteen mobile clinics in country areas, and three dental teams with the Royal Flying Doctor Service (located at Broken Hill). In 1965, 115,038 school children were examined by the school dental service and 15,718 of these were treated.

Victoria

School medical services are conducted in close association with the Education Department. All children between the ages of five and fifteen years attending State and registered schools are examined regularly and any disabilities found in the children are brought to the notice of their parents. School nurses, under medical direction, visit the homes and schools. Children suffering from physical and mental disabilities are recommended to attend appropriate schools or classes by the medical officers. Some special training for the handicapped is given.

The School Dental Service has an establishment of forty three dental officers and provides dental attention for children in the metropolitan area at three dental centres, and for a number of country districts by means of fifteen mobile units, including six twin-surgery units. It also provides dental services for children's institutions in and around Melbourne and certain provincial centres. The service is now providing dental attention for some 80,000 primary school children.

Queensland

During 1964-65 medical officers and nurses examined 106,295 school children; 4,890 children had disabilities of which parents were notified and advised to seek attention. In western Queensland local doctors act as part-time ophthalmic surgeons. Advice is given on school sanitation, communicable diseases in schools, and health education.

During 1964 school dentists gave treatment to 12,065 school children who resided in areas beyond easy reach of hospital dental clinics. The treatment was carried out at four rail dental clinics and with portable equipment at schools. In addition, school children are treated at hospital dental clinics in the larger towns.

South Australia

State schools within a radius of sixty miles from Adelaide and at five large country centres are visited annually, and the children are examined while in grades 1, 4 and 7 in the primary schools and in their second and fourth years in secondary schools. Efforts are made to visit the remaining country schools every three years, when all the children are examined. Students who wish to become teachers are examined on appointment as Honours Teaching Scholars while still attending secondary schools, again immediately prior to entering the Teachers' College, and finally when they leave the College to take up teaching. Courses of lectures in health education are given to all College students.

During 1965, 80,156 children were examined by medical officers in 234 country and 175 metropolitan schools. Of these, 5,974 required treatment for defective vision, 2,371 for defective hearing, and 12,797 for dental disorders. Dentists using mobile vans examined 5,272 school children in country areas where a private dental service was not readily available; 4,442 children were offered treatment; 3,987 accepted and were treated free of charge. There were 2,584 children examined at the Deafness Guidance Clinic during 1965. Of the 1,483 new patients, 778 were referred to doctors or hospitals for treatment. Educational work was assisted by talks to mothers' clubs and interviews with parents by doctors and dentists, and by home visits and interviews by nurses.

Western Australia

The School Medical Service of the State Health Department employs seven full-time medical officers for schools. During 1964 these officers examined 48,441 children (metropolitan 35,382, country 13,059). The 350 schools visited comprised metropolitan, 265 (Government schools 191, non-government schools 74) and country, 85 (government schools 66, non-government schools 19). The School Medical Services provide for the examination of each school child twice during his school career.

During 1964 the fourteen full-time dentists employed by the School Dental Service visited 4 metropolitan schools, 113 country schools, 9 orphanages, and 3 native missions. The number of children examined was 9,669. With the consent of their parents, 6,861 of these were treated. Twelve dental vans were in operation.

Tasmania

During 1965 three full-time and nine part-time medical officers examined school children in Government and non-government schools. In addition, two regional medical officers of health also examined school children. Twenty two full-time and five part-time sisters visited homes and schools. Of the 20,310 children examined by medical officers, 7,493 were found to have defects.

The school dental service was re-organized during 1964-65 and placed under the control of the senior medical officer, Department of Health Services. A major dental clinic is now established at Hobart. A clinic at Launceston is staffed by two dental officers, and there are eighteen district dental officers in country areas. School dental work on King and Flinders Islands is performed at Government expense by private practitioners. During 1964-65 there were 11,173 new visits to school dentists and 15,488 repeat visits.

Northern Territory

The Schools Medical Officer makes routine physical examinations of all children attending pre-school centres and schools. The only children not so examined by him are those at the Native Welfare Settlement School, i.e. full-blood Aborigines, who are examined during native health surveys. A special dental service for school and pre-school children is available in Darwin and Alice Springs. School doctors and dentists travel throughout the Territory to carry out diagnosis and treatment.

Australian Capital Territory

The Commonwealth Department of Health is responsible for health aspects of child welfare in the Australian Capital Territory. These include the School Medical Service carried out by three medical officers and three trained nurses, and the School Dental Service, staffed by eleven dentists, together with surgery and clinical assistants.

A Child Guidance Clinic has been established to assist children with psychiatric disorders. The clinic assists children of both pre-school and school age, who are referred to the clinic by private doctors, the School Medical Service, social workers, and the Australian Capital Territory Education Clinic.

Medical examinations are carried out at all schools, public and private, within the Territory. The total number of children examined during 1965 was 5,417. The majority of the examinations were of children in the 6, 8, 12, 15 and 17 year age groups, but another large group of children was referred for examination of special conditions. In addition, examination of children attending pre-school centres was made according to the time available, 144 pre-school children being examined.

Defects notified during the year were: 769 eyesight, 65 ear, nose and throat, and 43 miscellaneous; while 184 cases of hearing loss not requiring further treatment were also found. Triple antigen injections, totalling 8,788 in 1965, were given at regular sessions held throughout the year, while 1,206 anti-poliomyelitis injections were given to school children and 7,507 at baby health clinics.

The School Dental Service provides free treatment for children attending infants and primary schools, both public and private, in the Australian Capital Territory. During 1965, 10,005 children were examined in Canberra and Jervis Bay schools. As in previous years, visits were also made to the Cocos (Keeling) Islands and the Wreck Bay Aboriginal settlement. In all, a total of 10,065 children were examined by the School Dental Service. A resident dental officer has been appointed to Norfolk Island.

Disposal of dead by cremation

The first crematorium in Australia was opened in South Australia in 1903. At 31 December 1965 there were nineteen crematoria in Australia, situated as follows: New South Wales, 7; Victoria, 4; Queensland, 3; South Australia, 1; Western Australia, 2; Tasmania, 2. A crematorium in the Australian Capital Territory was completed in 1966. There is no crematorium in the Northern Territory. The following table shows the number of cremations and total deaths in each State for each of the years 1961 to 1965.

CREMATIONS AND TOTAL DEATHS: STATES AND TERRITORIES, 1961 TO 1965

State or Territory	1961		1962		1963		1964		1965	
	Cremations	Total deaths	Cremations	Total deaths	Cremations	Total deaths	Cremations	Total deaths	Cremations	Total deaths
New South Wales	13,991	35,048	15,198	36,861	15,664	37,226	16,321	39,487	16,651	38,949
Victoria	7,923	24,500	8,425	25,847	8,782	26,920	9,832	27,548	9,857	28,031
Queensland	3,998	12,756	4,220	13,182	4,432	13,275	4,745	14,523	4,905	14,114
South Australia	908	7,815	1,122	8,232	1,304	8,201	1,506	8,906	1,638	8,788
Western Australia	1,576	5,729	1,640	5,810	1,900	5,976	2,003	6,429	2,010	6,274
Tasmania	731	2,789	792	2,870	786	2,818	864	3,174	912	3,043
Northern Territory	..	128	..	144	..	161	..	164	..	161
Australian Capital Territory	..	196	..	217	..	317	..	363	..	355
Australia	29,127	88,961	31,397	93,163	32,868	94,894	35,271	100,594	35,973	99,715

COMMONWEALTH GOVERNMENT ACTIVITIES

Commonwealth services outlined in this chapter are those provided under the National Health Services or otherwise administered by the Commonwealth Department of Health. For particulars of services administered by the Commonwealth Department of Social Services and of Commonwealth expenditure from the National Welfare Fund on all forms of social and health services see the chapter Welfare Services.

At the time of federation the only health function given to the Commonwealth Government under the Constitution was the power to make laws with respect to quarantine. Following on the passing of the *Quarantine Act* 1908 a branch of the Department of Trade and Customs under the

control of a Director of Quarantine was created on 1 July 1909. The Commonwealth Department of Health was formed in 1921 by the extension and development of the quarantine service, the Director of Quarantine becoming the Director-General of Health. An amendment to the Constitution in 1946 gave the Commonwealth power to make laws with respect to pharmaceutical, hospital and sickness benefits, and medical and dental services. In addition, the Commonwealth Government has used its powers under Section 96 of the Constitution to make grants to the States for health purposes.

National health benefits

Pharmaceutical benefits

A comprehensive range of drugs and medicines is made available to all persons receiving treatment from a medical practitioner registered in Australia. The benefits are supplied by an approved pharmacist upon presentation of a prescription, or by an approved hospital to patients receiving treatment at the hospital. The patient pays the first 50 cents of the cost of a prescription dispensed by an approved pharmacist, but pensioners who are eligible for treatment under the Pensioner Medical Service (see page 562) receive all benefits without any contribution being made. Special arrangements exist to cover prescriptions dispensed at locations outside the normal conditions of supply, e.g. in remote areas. Total Commonwealth expenditure on pharmaceutical benefits in the year 1964-65 was \$82,202,610.

Hospital and nursing home benefits

The *National Health Act 1953-1965* provides for the payment of Commonwealth hospital and nursing home benefits. Commonwealth benefits are payable only in respect of treatment received in approved hospitals and approved nursing homes. For the purposes of the National Health Act premises which provide medical treatment, care and accommodation for sick persons are approved either as hospitals or as nursing homes, depending mainly on their clinical standards and the type of patients accommodated. Usually premises are approved as hospitals if their general standards are substantially equivalent to those of a public hospital and if hospital treatment, as defined in the National Health Act, is provided. Premises are approved as nursing homes where their general standards are similar to those prevailing in benevolent homes, convalescent homes, rest homes or homes for the aged, and if nursing home treatment as defined in the Act is provided.

Patients in approved hospitals. A basic principle of the provision of benefits for patients in approved hospitals is the Commonwealth support of voluntary insurance against the costs involved. Insured patients in approved hospitals receive a Commonwealth hospital benefit of \$2 a day which is paid through the contributors' registered hospital benefits organizations. Total payments by contributors to organizations range from 10 cents to 40 cents a week for single persons and from 20 cents to 80 cents a week for families. Examples of contributions and benefits payable, including Commonwealth benefits of \$2 a day, are:

Weekly contributions		Total benefits	
Single person	Family	Daily	Weekly
c	c	\$	\$
10	20	4.40	30.80
15	30	5.60	39.20
20	40	6.80	47.60
25	50	8.00	56.00
40	80	11.60	81.20

A contribution of 50 cents a week covers a family for benefits at least equal to the public ward charge in any State. Contributions are allowable deductions for income tax purposes.

During the waiting period of two months after joining an organization the Commonwealth benefit is payable at the rate of 80 cents a day, unless the organization pays fund benefits, in which case Commonwealth benefit is payable at the higher rate of \$2 a day. While a member is in arrears with his contributions and fund benefits are not payable, the Commonwealth benefit is payable at the rate of 80 cents a day unless the member was in receipt of unemployment or sickness benefits under the *Social Services Act 1947-1965*.

Contributors who would have been excluded from fund benefits because of organizations' rules covering pre-existing ailments, chronic illnesses or maximum benefits are assured of hospital fund benefits by the provisions of the special account plan. The hospital fund benefit usually payable in such cases is \$1.60 a day and is paid either from special account, guaranteed by the Commonwealth, or from the ordinary account of the organization. One condition of payment is that the treatment in respect of which the fund benefit was paid was given in an approved hospital,

although fund benefit is paid in certain circumstances in respect of treatment given in approved nursing homes. If the payments from the special account exceed contributions credited to the account, the amount of deficit is reimbursed by the Commonwealth.

A person who joins a registered hospital benefits organization within eight weeks of being discharged from an approved nursing home is entitled to immediate Commonwealth benefit of \$2 per day and to fund benefits without having to serve a waiting period. If a qualified patient in an approved hospital is not insured (i.e. not a member of a hospital benefits organization), a Commonwealth benefit of 80 cents a day is deducted from his account by the hospital. The Commonwealth subsequently reimburses the hospital. Under arrangements made under the National Health Act pensioners who are enrolled in the Pensioner Medical Service and are treated in public wards of public hospitals are entitled (with a few exceptions) to free public ward treatment. For this the Commonwealth pays the hospitals a benefit of \$3.60 a day for each pensioner.

Patients in approved nursing homes. The Commonwealth nursing home benefit of \$2 a day is payable to all qualified patients in approved nursing homes whether the patients are insured or not. This benefit is deducted from the patient's account and subsequently paid by the Commonwealth to the nursing home. If no charge is made by the nursing home, the Commonwealth nursing home benefit of \$2 a day is still payable to the nursing home in respect of qualified patients.

There is no need for patients in approved nursing homes to be insured with a registered hospital benefits organization. Fund benefits are generally not payable. However, the National Health Act provides that where an insured special account patient is treated in an approved nursing home for an acute illness or condition and is given treatment equivalent to that which he would have received in an approved hospital, approval may be given to the payment of special account fund benefits.

Australians overseas. Australian residents who receive hospital treatment in recognized hospitals in overseas countries, while temporarily absent from Australia, are eligible to receive the Commonwealth and fund benefits to which they are entitled.

Expenditure on hospital and nursing home benefits. The following table shows the amount of Commonwealth hospital and nursing home benefits paid during 1964-65. This does not include expenditure on mental hospitals (see page 560).

**COMMONWEALTH HOSPITAL AND NURSING HOME BENEFITS PAID
STATES AND TERRITORIES, 1964-65**
(\$'000)

Type of patient	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Uninsured patients (80c)	745	456	960	122	151	50	15	116	2,614
Insured patients (\$2)(a)	8,198	4,647	2,230	1,921	1,569	655	(b)	(b)	19,221
Pensioner patients (\$3.60)	5,249	2,750	2,587	1,099	1,349	420	102	28	13,585
Nursing home patients (\$2)	8,044	4,500	3,076	1,778	1,734	664	..	..	19,796
Total	22,236	12,353	8,853	4,920	4,803	1,789	117	144	55,216

(a) Does not include payments of \$3,576,182 towards special accounts deficits in 1964-65. (b) Members who live in the Northern Territory or the Australian Capital Territory, or who are abroad, receive their Commonwealth benefit and fund benefit through membership of an organization registered in one of the States and payments to them are included in the respective States.

Registered hospital benefits organizations. The following table shows the number of registered hospital benefits organizations, the membership at 30 June 1965, and fund benefits paid during 1964-65. As many persons contribute on behalf of both themselves and their dependants, the total number of persons covered by hospital benefit schemes is considerably higher than the number of members.

HOSPITAL BENEFITS: ORGANIZATIONS AND FUND BENEFITS, STATES, 1964-65

—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.(a)
Registered organizations at 30 June 1965(b)	32	(c) 44	3	13	9	10	111
Membership at 30 June 1965	1,327,196	1,006,780	308,928	382,309	267,694	114,472	3,407,379
Fund benefits paid . \$'000	24,778	10,049	3,954	5,328	3,856	1,854	49,819

(a) Members who live in the Northern Territory or the Australian Capital Territory, or who are abroad, receive their Commonwealth benefit and fund benefit through membership of an organization registered in one of the States and payments to them are included in the respective States. (b) Interstate branches are not included. (c) Includes eighteen Bush Nursing Hospitals.

Mental hospitals

In 1946, when Commonwealth hospital benefits were introduced for patients in public hospitals, no provision was made for patients in mental hospitals. To help meet the cost of maintaining patients in mental hospitals the Commonwealth Parliament passed the *Mental Institutions Benefits Act 1948*. This Act ratified agreements with the States, whereunder it was provided that the States would cease making charges for the maintenance of mental patients and that the Commonwealth would pay the States a benefit based on the amount which had been collected by the States from the relatives of patients in mental hospitals by way of charges for maintenance.

These agreements operated for five years and terminated in the latter half of 1954. The amount contributed by the Commonwealth during the operation of the agreements was approximately one shilling (ten cents) a day for each patient. When the agreements terminated, Dr. Alan Stoller, of the Victorian Mental Hygiene Authority, was commissioned to undertake a survey of mental health facilities and needs in Australia. His report, issued in May 1955, stated that serious overcrowding existed in the majority of mental hospitals in Australia. The provision of more beds was the most urgent need, but other accommodation and rehabilitation facilities were also required.

Following the report, the Commonwealth made an offer of \$20 million to the States as part of a capital expenditure programme of \$60 million on increasing and improving patient accommodation. All States accepted the Commonwealth offer. By 1963 more than three-quarters of the total grant under the *States Grants (Mental Institutions) Act 1955* had been distributed, and the Commonwealth Government announced in November 1963 its intention of continuing assistance to the States towards capital costs on a similar basis, but without overall limit, for a period of three years. In May 1964 the *States Grants (Mental Health Institutions) Act 1964* was passed to implement that policy. This Act provided for the continuation of Commonwealth aid of \$1.00 for every \$2.00 of capital expenditure by the States on mental health facilities. The new Act makes no provision limiting the size of the grant and the assistance is limited to the three-year period concluding on 30 June 1967. The following table sets out the amounts which have been paid to the State Governments by the Commonwealth Government from 1955-56 to 1964-65.

EXPENDITURE ON MENTAL HOSPITALS BY THE COMMONWEALTH
GOVERNMENT: STATES, 1955-56 TO 1964-65
(\$'000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1955-56 . . .	418	891	133	24	20	60	1,546
1956-57 . . .	767	1,054	176	257	104	138	2,496
1957-58 . . .	648	1,091	228	304	58	183	2,513
1958-59 . . .	394	1,239	237	245	34	92	2,241
1959-60 . . .	718	1,036	149	184	74	134	2,295
1960-61 . . .	866	168	195	91	31	104	1,454
1961-62 . . .	1,297	..	141	56	154	..	1,648
1962-63 . . .	1,295	..	75	104	116	..	1,590
1963-64 . . .	982	..	108	173	332	..	1,595
1964-65(a) . .	659	711	225	265	447	197	2,504
Total, 1955-56 to 1964-65	8,044	6,191	1,668	1,703	1,369	907	19,882

(a) Expenditure for 1964-65 includes final grants, totalling \$406,454, made under the 1955 Act as follows: New South Wales, \$274,938; Queensland, \$21,210; and South Australia, \$110,306.

There are no mental hospitals in the Northern Territory or in the Australian Capital Territory.

Medical benefits

A medical benefits scheme has operated since July 1953, being authorized firstly by the National Health (Medical Benefits) Regulations and then by the *National Health Act 1953-1965*. The basic principle of the scheme is Commonwealth support of voluntary insurance towards meeting the costs of medical attention. The benefits provided by the Commonwealth are paid either on a fee-for-service basis in respect of the items set out in the schedule to the National Health Act or in the form of a subsidy not exceeding half of the payments made to doctors by registered organizations under contract arrangements.

Commonwealth fee-for-service benefits are paid in accordance with the list of benefits set out in the Schedule to the *National Health Act* 1953-1965. The present Schedule came into force on 1 June 1964, and the increased benefits are reflected in Commonwealth expenditure for 1964-65.

In order to qualify for a Commonwealth benefit a person is required to be insured with a registered medical benefit organization. The organization pays the Commonwealth benefit to the contributor, usually at the time it pays its own benefit. Reimbursement of the Commonwealth benefit is subsequently made to the organization by the Commonwealth.

Commonwealth benefits ranging from 80 cents for ordinary general practitioner visits to \$60 for major operations are payable to members of registered medical benefit organizations. The fund benefit payable varies according to the weekly contributions paid by the member and the particular medical service. Examples of the range of benefits are as follows.

Type of service	Combined Commonwealth and fund benefits(a)			
	\$			
Certain major operations	150.00
Appendix operation	45.00
Midwifery	33.75
Tonsils—				
Under 12 years	15.75
12 years and over	22.50
Surgey consultation—general practitioner	from \$1.60 to \$2.00

(a) The total benefit varies according to the weekly contribution rate. The most common contribution rates are 20 cents a week for single persons and 40 cents a week for a family.

NOTE. From 1 April 1965 the majority of medical benefit organizations introduced new tables of fund benefit based on the present Commonwealth Schedule. The general effect of these new tables will be an increase in the fund benefits paid by the organizations to their contributors.

Provision is made for the payment of fund benefit from special account for claims lodged by contributors who have reached maximum benefits or who make claims in respect of pre-existing ailments. The medical special accounts are operated along the same principles as the hospital special accounts (see pages 558-9) and the special account fund benefit paid usually matches the Commonwealth benefit for the particular service.

Australians overseas. Australian residents temporarily absent from Australia who receive medical attention by registered medical practitioners in the country they are visiting are entitled, if insured, to the Commonwealth benefit and the medical fund benefit to which they would be entitled if the service were rendered in Australia.

Expenditure on medical benefits. The following table shows the number of registered medical benefit organizations, their membership, the number of medical services rendered to members and their dependants, and payments of Commonwealth benefits and medical fund benefits to members of registered organizations. As many persons contribute on behalf of both themselves and their dependants, the total number of persons covered by medical benefit schemes is considerably higher than the number of contributors.

MEDICAL BENEFITS: SUMMARY, STATES, 1964-65

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.(a)
Registered organizations(b) No.	28	20	6	8	8	10	80
Members No.	1,280,329	916,189	308,868	349,214	254,440	108,449	3,217,489
Medical services No.	10,349,114	6,977,006	2,993,110	2,911,261	2,121,063	770,725	26,122,279
Commonwealth benefit(c) \$'000	13,772	8,850	3,747	4,230	3,001	995	34,595
Fund benefit \$'000	15,961	8,525	4,135	4,013	3,096	1,150	36,880

(a) Members who live in the Northern Territory or the Australian Capital Territory, or who are abroad, receive their Commonwealth benefit and fund benefit through membership of an organization registered in one of the States. (b) Interstate branches are not included. (c) Does not include payments of \$681,922 towards special accounts deficits.

Pensioner Medical Service

The Pensioner Medical Service, which commenced on 21 February 1951, was introduced under the authority of the National Health (Medical Services to Pensioners) Regulations made under the provisions of the *National Health Services Act* 1948-1949. The service has been continued under the provisions of the *National Health Act* 1953-1965. The service provided to eligible pensioners consists of medicine provided free of charge and a medical service of a general practitioner nature such as that ordinarily rendered by a general medical practitioner in his surgery or at the patient's home. Specialist services are not provided. Patients may be charged a small fee by doctors for travelling and attendance outside normal surgery or visiting hours. Doctors participating in the scheme are paid on a fee-for-service basis by the Commonwealth Government.

From 1 November 1955 to 1 January 1966 persons eligible to receive the benefits of the service were those who satisfied a means test and received an age, invalid or widow's pension under the *Social Services Act* 1947-1964, or a service pension under the *Repatriation Act* 1920-1964, or a tuberculosis allowance under the *Tuberculosis Act* 1948, and dependants of persons eligible for the service. Since 1 January 1966 all those pensioners and their dependants who qualify under the current means tests are eligible for the benefits of the Pensioner Medical Service. The means test now applied for enrolment in the Pensioner Medical Service is the merged means test determining eligibility for a full or part pension or a tuberculosis allowance.

At 30 June 1965 the total number of pensioners and dependants enrolled in the Pensioner Medical Service was 849,074, while the number of doctors participating in the scheme at that date was 5,896. As a result of the relaxation of the Pensioner Medical Service means test, which became effective as from 1 January 1966, an additional 137,000 pensioners and dependants have been admitted to the Service. During 1964-65 doctors in the scheme provided 7,247,891 services—visits and surgery consultations—for persons enrolled in the scheme. For these services they were paid \$9,320,404. The average number of services rendered by doctors to each enrolled person was 8.5.

Anti-tuberculosis campaign

The main provisions of the *Tuberculosis Act* 1948 are as follows: (a) Section 5 authorizes the Commonwealth to enter into an arrangement with the States for a national campaign against tuberculosis; (b) Section 6 empowers the Commonwealth to take over or provide specified facilities for the diagnosis, treatment and control of tuberculosis; (c) Section 8 provides for the setting up of an advisory council to advise the Commonwealth Minister for Health on matters relating to the national campaign; and (d) Section 9 authorizes the Commonwealth to pay allowances to sufferers from tuberculosis and to their dependants.

Under an arrangement with the Commonwealth Government, each State conducts a campaign against tuberculosis. The Commonwealth Government reimburses the State for all approved capital expenditure in relation to tuberculosis, and for net maintenance expenditure to the extent that it exceeds net maintenance expenditure for the year 1947-48. Thus the States carry out the physical or field work of the national campaign and the Commonwealth acts in an advisory, co-ordinating and financial capacity. For this reason the Commonwealth has not found it necessary to make much use of its powers under Section 6 of the *Tuberculosis Act*. An advisory council, known as the National Tuberculosis Advisory Council, has been set up. There are twelve members, the chairman being the Commonwealth Director-General of Health.

To help reduce the spread of infection the Commonwealth Government pays allowances to persons suffering from infectious tuberculosis, so that they may give up work and undergo treatment. These allowances have been in operation since 13 July 1950. The rates now payable are: married sufferer with a dependent wife, \$25.25 a week; sufferer without a spouse but with a dependent child or children, \$16.00 a week; dependent child or children under sixteen years of age and full-time student children from sixteen to 21 years, \$1.50 a week for each dependent child (additional to child endowment); sufferer without dependants, \$15.25 a week (reducible to \$12.00 a week if a person is maintained free of charge in an institution).

There is a means test on income but not on property. The allowance is reduced by the amount by which a person's income from sources other than his allowance exceeds, in the case of a married person, \$14 a week, and in the case of a person without a dependent wife, \$7 a week.

New tuberculosis cases notified. The following table gives particulars of the number of new cases of tuberculosis notified in Australia for 1965.

TUBERCULOSIS: NEW CASES NOTIFIED(a), STATES AND TERRITORIES, 1965

State or Territory	Age group (years)					Total
	0-14	15-34	35-54	55 and over	Not stated	
New South Wales . . .	49	160	374	439	5	1,027
Victoria	62	151	283	294	..	790
Queensland	11	82	243	300	3	639
South Australia	7	33	65	50	1	156
Western Australia . . .	6	21	56	65	..	148
Tasmania	5	9	32	25	..	71
Northern Territory . . .	15	15	20	11	..	61
Australian Capital Territory	1	3	6	1	..	11
Australia	156	474	1,079	1,185	9	2,903

(a) Figures supplied by the Director of Tuberculosis in each State.

Commonwealth expenditure. Expenditure by the Commonwealth Government during 1964-65 on its anti-tuberculosis campaign is set out in the following table. The figures for maintenance differ from those in the table shown in the chapter Welfare Services because they include administrative costs, which are not a charge on the National Welfare Fund.

**COMMONWEALTH EXPENDITURE ON ANTI-TUBERCULOSIS CAMPAIGN
STATES AND TERRITORIES, 1964-65**
(\$'000)

State or Territory	Allowances	Maintenance (a)	Capital	Total
New South Wales . . .	(b) 526	3,700	135	4,361
Victoria	297	2,775	308	3,380
Queensland	362	2,042	223	2,627
South Australia	(c) 117	666	13	796
Western Australia . . .	80	773	11	864
Tasmania	76	380	6	462
Australian Capital Territory	(d)	17	..	17
Australia	1,458	10,354	696	12,508

(a) Includes \$208,242 for administrative costs. (b) Includes Australian Capital Territory. (c) Includes Northern Territory. (d) Included with New South Wales.

The following table sets out expenditure by the Commonwealth Government on its anti-tuberculosis campaign during the years 1960-61 to 1964-65.

**COMMONWEALTH EXPENDITURE ON ANTI-TUBERCULOSIS
CAMPAIGN: AUSTRALIA, 1960-61 TO 1964-65**
(\$'000)

Year	Allowances	Maintenance (a)	Capital	Total
1960-61 .	1,893	8,518	821	11,232
1961-62 .	1,746	8,838	773	11,357
1962-63 .	1,607	9,942	984	12,533
1963-64 .	1,593	10,679	598	12,871
1964-65 .	1,458	10,354	696	12,508

(a) Includes administrative costs.

Anti-poliomyelitis campaign

Information concerning the initial production by the Commonwealth Government of anti-poliomyelitis vaccine in Australia in 1955, and of the testing procedures which were carried out, is contained in Year Book No. 49 and earlier issues.

Distribution of the Salk poliomyelitis vaccine, which was supplied free of charge to the States, began in July 1956. The States were responsible for the organization and running of their own campaigns and for the distribution of the vaccine in accordance with priority groups established by the National Health and Medical Research Council. Up to 1958 priority was given to children in the 0-14 age group, expectant mothers, and persons subjected to special risk. During 1958 this priority was extended to persons in the 15-44 age group. No child can be vaccinated without the consent of a parent or guardian.

Vaccination against poliomyelitis takes the form of four injections of the vaccine. The second injection is given approximately four weeks after the first the third injection is given not less than thirty-two weeks after the first, and the fourth injection a minimum of one year after the third dose. Where the incidence of the disease in certain areas approaches epidemic proportions, special efforts have been made to vaccinate as soon as possible all persons in the area who give their consent.

One million doses of each of the three types of monovalent Sabin vaccine were imported by the Commonwealth in October 1962, for use in a possible emergency. The decision whether to use the Sabin vaccine rests with the individual State Health Authorities, who have now agreed that routine use of the vaccine is also a matter for the individual States.

Following the success of a pilot scheme in 1964, the Tasmanian Government conducted a full scale Sabin vaccination programme in the latter months of 1965. In this campaign the oral vaccine was made available to all, irrespective of previous vaccination status.

It is difficult to give a completely accurate estimate of the vaccination coverage for the whole of Australia because methods of recording vaccination data differ from State to State. The proportion of children who had received three injections by twelve months of age is considered to be very small; by the recommended dosage schedule the third injection is given at fourteen months or later. From figures available in 1964 more than 60 per cent of children from fifteen months to four years have received three injections. In the age group five to fourteen years, 90 per cent have had three injections, as also have the fifteen to nineteen year olds. Only 40 per cent of persons twenty to forty-five years old have received three or more injections.

Australia-wide information is not available regarding the proportion of the population which has now received a fourth injection, but if information from South Australia can be taken as a guide, it would appear that approximately 16 per cent of those persons who have already received three injections have also received a fourth dose.

New cases of poliomyelitis notified. The numbers of new cases of poliomyelitis notified, and confirmed by the Poliomyelitis Sub-committee of the National Health and Medical Research Council, are shown for each State for each year from 1961 to 1965 in the following table.

POLIOMYELITIS: NEW CASES NOTIFIED, STATES AND TERRITORIES, 1961 TO 1965

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1961 .	201	50	141	44	2	11	1	..	450
1962 .	178	22	38	17	4	..	1	..	260
1963 .	3	19	1	8	5	..	..	..	36
1964 .	1	6	..	..	..	..	..	..	7
1965 .	3	..	..	..	..	1	..	..	4

Free milk for school children scheme

The *States Grants (Milk for School Children) Act* 1950 was passed with the object of improving the diet of school children by the addition of a small quantity of milk each day. All children under the age of thirteen years attending government or non-government primary schools, including nursery schools, kindergartens, crèches and missions for Aborigines, are eligible to receive free milk. The cost of the milk and half the capital or incidental costs, including administrative expenses of the scheme, are reimbursed by the Commonwealth to the States. All States now participate in the scheme. At 30 June 1965 approximately 1,678,000 children were entitled to receive free milk under this scheme. Expenditure by the Commonwealth Government during the years 1960-61 to 1964-65 was as follows.

**COMMONWEALTH EXPENDITURE ON MILK FOR SCHOOL CHILDREN SCHEME
STATES AND TERRITORIES, 1960-61 TO 1964-65**
(\$'000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1960-61 . .	2,559	2,040	1,036	564	451	400	44	48	7,142
1961-62 . .	2,659	2,072	1,130	665	529	351	47	55	7,507
1962-63 . .	2,636	1,901	1,146	714	586	384	53	60	7,480
1963-64 . .	2,663	2,186	1,120	708	618	399	50	55	7,799
1964-65 . .	2,881	2,069	1,215	760	640	389	72	60	8,085

The figures in the foregoing table differ slightly from those in the table shown in the chapter Welfare Services, as they include capital and administrative costs. Figures in the latter table represent only expenditure which is a charge on the National Welfare Fund (i.e. the cost of the milk).

Commonwealth organizations concerned with health

National Health and Medical Research Council

In 1926 the Commonwealth Government established a Federal Health Council, in accordance with a recommendation of the Royal Commission on Health (1925), 'for the purpose of securing closer co-operation between the Commonwealth and State Health Authorities'. In 1936 the Commonwealth Government decided to create a body with wider functions and representation, and the National Health and Medical Research Council was established with the following functions: to advise Commonwealth and State Governments on all matters of public health legislation and administration, on matters concerning the health of the public and on medical research; to advise the Commonwealth Government on the expenditure of money specifically appropriated to be spent on the advice of this Council; to advise the Commonwealth Government on the expenditure of money on medical research and on projects of medical research generally; and to advise Commonwealth and State Governments on the merits of reputed cures or methods of treatment which are from time to time brought forward for recognition.

The Council consists of the Commonwealth Director-General of Health (as chairman), two other officers of the Commonwealth Department of Health, the official head of each State Health Department, the Director of Public Health for Papua and New Guinea, a representative of the Commonwealth Serum Laboratories Commission, and ten other members, one each being nominated by the Australian Medical Association, the Australian Dental Association, the Australian Paediatric Association, the Australian College of General Practitioners, the Royal Australasian College of Physicians, the Royal Australasian College of Surgeons, the Australian Regional Council of the Royal College of Obstetricians and Gynaecologists, the College of Pathologists of Australia, the College of Radiologists of Australasia, and the Australian universities having medical schools. An eminent layman and laywoman, appointed by the Commonwealth Minister for Health, also serve on the Council.

The Council has established three advisory committees—the Medical Research Advisory Committee, the Medicine Advisory Committee, and the Public Health Advisory Committee—to provide advice in each specialized field. It has also established other committees to consider specialized subjects such as antibiotics, dental health, food standards, maternal and child health, nursing, nutrition, occupational health, and veterinary public health.

The first session of the National Health and Medical Research Council was held at Hobart in February 1937. The sixtieth session was held at Canberra in October 1965.

Under the *Medical Research Endowment Act 1937* the Commonwealth Government has made an annual appropriation of funds to assist: (a) departments of the Commonwealth or of a State engaged in medical research; (b) universities for the purpose of medical research; (c) institutions and persons engaged in medical research; and (d) in the training of persons in medical research. For 1964-65 this appropriation was \$826,000 and for 1965-66, \$878,000.

National Biological Standards Laboratory

The *Therapeutic Substances Act 1953-1959* provides the Commonwealth with powers to ensure that therapeutic substances used for the prevention, diagnosis and treatment of disease in man and animals are safe, pure and potent. The Director-General of Health is authorized under this Act to set up laboratories to test such substances. In 1958 the first steps were taken to establish an Australian National Biological Standards Laboratory in Canberra.

The Laboratory is divided into two main divisions, a Biological Division and a Pharmaceutical Division. The Biological Division consists of the Bacterial Products Laboratory, the Viral Products Laboratory, an Endocrine Products Laboratory, and an Antibiotic Products Laboratory. The Pharmaceutical Division consists of an Analytical Chemistry Laboratory and a Pharmacology Laboratory.

Samples of therapeutic agents available in Australia are taken and tested for compliance with legal standards. A major function of the laboratories is the establishment of such standards where none at present exist or present standards are unsatisfactory. The laboratories receive international reference standards of biological substances from stocks maintained by the World Health Organization, and will on request issue Australian reference standards which have been assayed against international standards.

Commonwealth Serum Laboratories

The laboratories were established in 1916 under the administration of the Department of Trade and Customs and from 1921 to 1961 were operated under the Department of Health. Control of the laboratories passed to the Commonwealth Serum Laboratories Commission on 2 November 1961.

The laboratories' basic function is to ensure the supply of essential biological products in accordance with national health needs. This includes production and supply of essential biological products; research and development relating to biological products and allied fields; and the maintenance of potential production capacity for use in emergencies.

Since their foundation the laboratories have greatly extended in size and scope. They now produce some 450 regular products and many special products for use in the diagnosis, prevention and treatment of human and animal diseases. Professional, technical and other staff total over 900.

Products comprise a full range of human bacterial and virus vaccines, veterinary bacterial and virus vaccines, serum products such as blood fractions, a wide variety of antibacterial and antitoxic sera, antivenenes, penicillin, endocrines, including insulin, A.C.T.H., pituitary and thyroid extracts, allergy testing materials and desensitizing preparations, culture media, and diagnostic agents for clinical and laboratory work. More recently, tissue culture materials have been prepared and supplied to virus research workers throughout Australia.

Continual research is conducted into the relevant aspects of microbiology, immunology and related fields. As the growth of medical and scientific knowledge in Australia and overseas reveals new methods of diagnosis, prevention and treatment of diseases, this information is applied to the preparation of new biological products at the laboratories.

Facilities are maintained for investigations into public health matters which are inconvenient or impracticable to handle at the Commonwealth Health Laboratories or the School of Public Health and Tropical Medicine. The laboratories serve as a national centre for the maintenance in Australia of the international standards of the Permanent Commission on Biological Standards (World Health Organization). They act as a regional reference centre for WHO in collating reports of the prevalence of certain infectious diseases and provide facilities for the identification of these diseases. Veterinary biological products produced at the laboratories have given the lead to other producers in Australia, resulting in the diminution of the incidence of a number of serious infectious stock diseases.

Commonwealth Health Laboratories

Health laboratories of which there are fifteen, are situated in the following towns: Albury, Alice Springs, Bendigo, Cairns, Canberra, Darwin, Hobart, Kalgoorlie, Launceston, Lismore, Port Pirie, Rockhampton, Tamworth, Toowoomba and Townsville. They were established as an essential part of the quarantine system but were also to undertake research into local health problems and to provide doctors of each district with up-to-date facilities for laboratory investigation and diagnosis. It was realized that co-operation between the general practitioner, with his clinical observations and knowledge of the environment of disease on the one hand, and the staff of a well-equipped laboratory on the other, is essential to the investigation and control of disease.

From this standpoint the laboratories have proved their value in the determination of leptospirosis and endemic typhus in North Queensland, in the investigation of special local problems in Darwin, of undulant fever throughout Australia, of silicosis and tuberculosis at Kalgoorlie, and of plumbism at Port Pirie. In these investigations close co-operation exists with State and local health and hospital services, especially in Queensland where collaboration has yielded exceptionally valuable results in differentiating the groups of fevers previously unclassified in that State. In this investigational work, as well as in more routine activities, the laboratories have at their disposal the full resources and technical and specialist facilities available at the Commonwealth Serum Laboratories and the School of Public Health and Tropical Medicine, Sydney.

The laboratories are unique in that, with the exception of the use of X-rays, they cover all the fields of diagnostic requirements, namely, pathology, public health, haematology, parasitology, mycology, bacteriology, biochemistry, and blood group serology.

Commonwealth Acoustic Laboratories

Sponsored by the National Health and Medical Research Council, the Acoustic Research Laboratory, Sydney, investigated inter-communication difficulties and noise problems in aircraft and tanks (1942-46). It then investigated the problem of congenital deafness in children resulting from maternal rubella. The Department of Health took over the laboratory in January 1947, and subsequently established branch laboratories in all other State capitals.

The *Acoustic Laboratories Act* 1948 gave the Minister for Health power to establish, maintain and operate, within the Commonwealth, acoustic laboratories for scientific investigations, including tests in respect of hearing aids and their application to the needs of individuals, and in respect of problems associated with noise as it affects individuals. Scientific investigations are carried out in the Central Laboratories in Sydney by specialized scientific groups in psychology and audiology, acoustics and electroacoustics, medical ultrasonics and psychoacoustics. The results of this research are published in scientific literature and Commonwealth Acoustic Laboratories reports. In 1949 the Government approved the provision and maintenance of hearing aids, without charge, to deaf school and pre-school children. This service has since been extended to those whose hearing loss is discovered after leaving school, but who are still under twenty-one years. Since May 1964 the cost of hearing aids has been met from the National Welfare Fund. The laboratories' functions also include: provision and maintenance of hearing aids on behalf of the Repatriation and other Commonwealth Departments; assistance to the State Education Departments in measuring deafness by providing and maintaining portable audiometers; testing hearing of civil aviation aircrew as required by international agreement; and the making of independent tests on behalf of State and other authorities. The Central Laboratories located in Sydney are responsible for staff training, production of equipment, calibration of hearing-aids and audiometers, and the technical administration of branch laboratories.

Commonwealth X-ray and Radium Laboratory

In 1928 the Commonwealth Government purchased ten grammes of radium for use in medical treatment and research in Australia. The use of this radium was to be co-ordinated by the Department of Health, and in 1929 the Department established the Commonwealth Radium Laboratory to act as custodian of the radium and to ensure its equitable distribution and efficient use. The radium is distributed on loan to treatment centres throughout Australia. Under the terms of these loans, treatment at well-equipped clinics is available to all persons requiring it, irrespective of their ability to pay. Portions of the original stock of radium have been remounted from time to time, reflecting changes in techniques of treatment.

In 1935 the work of the laboratory was extended to include physical aspects of X-ray therapy, and the name of the laboratory was changed at that time to its present form. Since 1939 its functions have included investigations of the physical aspects of the diagnostic use of X-rays with particular emphasis on miniature radiography and high-kilovoltage techniques. In 1946 the laboratory imported the first artificially-produced radioactive isotopes used in Australia and established a system for the procurement and distribution of these substances.

A radiochemical laboratory and associated facilities were set up in the laboratory to permit the assay of radioactive materials present in minute amounts in the environment—in air, water, soil, and foods such as milk, grain and vegetables. A programme of monitoring the fall-out in Australia arising from the testing of nuclear weapons is continuing.

The laboratory assists with services developed in the capital cities of Australia to provide local facilities for the production of radon, for the calibration of X-ray therapy equipment, and for the measurement of the exposure to radiation of those who work with X-rays and radioactive materials. The services of the laboratory are available to all who work with ionizing radiations.

A radon service has been operated by the laboratory since its inception. During 1964-65 34,480 millicuries of radon were issued by the laboratory in the form of implants, needles and tubes for use in Victoria, Tasmania, South Australia and Western Australia. A further 23,291 millicuries were issued by the associated centres in Sydney and Brisbane. The corresponding figures for 1963-64 were 39,766 millicuries and 23,688 millicuries, respectively. The issue of radon from a few centres to serve hospitals all over the continent is an Australian development which enables very efficient use to be made of the radium available.

Since 1935 the laboratory has maintained the Australian (free-air) standard for the precise measurement of X-ray doses. Sub-standard clinical dosimeters used by the laboratory and by centres in other States are calibrated in terms of this standard.

Through the development of atomic energy programmes overseas, supplies of radio-isotopes have been available for use in Australia since 1946. Some of the radio-isotopes required in Australia are prepared by the Australian Atomic Energy Commission in its reactor at Lucas Heights. At the present time the procurement and distribution of radio-isotopes to be used in medicine and medical research are the responsibility of the Department of Health, and these isotopes are procured by the laboratory, as a central procurement agency, principally from Great

Britain, Canada, and the United States of America. The procurement and distribution of radio-isotopes for industrial and non-medical uses are the responsibility of the Australian Atomic Energy Commission.

The importation of radio-isotopes is restricted under the Customs (Prohibited Imports) Regulations. Approval for importation is given either by the Director-General of Health or by the Australian Atomic Energy Commission, depending on the category of use, after it has been established that the isotope will be used safely and usefully.

During 1964-65, 42 different isotopes were procured for use in medicine and medical research. They represented 1,705 separate deliveries, of which 83 (including six different isotopes) were from the Australian Atomic Energy Commission. Of the 42 isotopes, 20 were for use in medical diagnosis or treatment, as distinct from medical research. Bulk supplies of radio-isotopes used for diagnosis or treatment are obtained regularly, and these are distributed by the laboratory as individual doses for use on patients throughout Australia in accordance with a policy developed by the Radio Isotopes Committee of the National Health and Medical Research Council. These radio-isotopes are issued free of charge. In the year ended 30 June 1965, 22,498 individual doses of these materials were issued for medical diagnosis and therapy.

Investigations of the degree of protection necessary in particular applications of X-rays and radioactive materials continue to be an important activity of the laboratory. It prepares specifications of the protection facilities necessary in departments and laboratories employing ionizing radiations in medicine, research and industry, and carries out measurements of radiation levels in existing departments and laboratories. A film-badge service to measure the radiation dose received by those exposed to ionizing radiations is maintained. In 1964-65, 65,299 film-badges were processed, assessed and reported on; the corresponding figure for the previous year was 72,411.

The laboratory maintains a library of radiological literature and issues library bulletins at appropriate intervals. Technical communications on topics related to its functions are issued from time to time.

School of Public Health and Tropical Medicine

In March 1930 the Commonwealth Government, under an agreement with the University of Sydney, established a School of Public Health and Tropical Medicine at the University of Sydney for the purpose of training medical graduates and students in the subjects of public health and tropical medicine. The organization of the Australian Institute of Tropical Medicine at Townsville was merged in the new school, and the staff, equipment and material were transferred to Sydney.

The School comprises sections of Preventive Medicine, Tropical Medicine, Occupational Health, Environmental Health, Biochemistry, Bacteriology and Pathology, Parasitology, Medical Entomology, and Medical Statistics. The Child Welfare section of the Institute of Child Health is located at the School, with which it is closely associated. The Occupational Health Section undertakes surveillance of the health of persons employed at the Small Arms Factory, Lithgow, and at the Munitions Filling Factory, St. Mary's. The Library, which includes approximately 17,000 bound volumes and a large collection of official and institutional papers and reports, forms an important information centre in the subjects of public health and tropical medicine.

The work of the school comprises both teaching and investigation. Courses are held for the university post-graduate diploma in public health and the diploma in tropical medicine and hygiene. Lectures are given in public health and preventive medicine as prescribed for the fifth year of the medical curriculum. Courses are provided also in hygiene and social medicine for students of architecture and social studies; in tropical medicine for lay officers, nurses in tropical service and missionaries; and in industrial health for engineering students. Training is also provided for certain personnel of the armed services, for laboratory workers from various services and institutions, and for post-graduate nursing diploma students.

Investigations cover a wide range of public health and medical subjects, both in the laboratory and in the field. Field work has been carried out in Australia and in Papua, New Guinea, Norfolk Island and Nauru in co-operation with the local administrations and the South Pacific Commission. Limited accommodation and other facilities for investigation can be made available at the school for independent research workers.

Institute of Child Health

Associated with the School of Public Health is the Institute of Child Health, part of which is located in the School of Public Health and Tropical Medicine in the grounds of the University of Sydney and part at the Royal Alexandra Hospital for Children, Camperdown. The activities of the Institute are concerned with research into medical and social problems of childhood, undergraduate teaching of students of the Faculty of Medicine in the University of Sydney, post-graduate teaching of doctors and members of associated professions, and collaboration with other bodies concerned with the general field of child health.

The establishment of the Institute at present consists of the director, two senior medical officers, one child psychiatrist, five other medical officers, a psychologist, two social workers and clerical staff. The director of the Institute is the Professor of Child Health in the University of Sydney. He is also a senior honorary paediatrician on the staff of the Children's Hospital. The child psychiatrist is also Associate Professor of Child Psychiatry in the University of Sydney. The director is required to co-ordinate and control undergraduate and post-graduate teaching in paediatrics and child health. Each group of medical students attends the Children's Hospital for ten weeks tuition in paediatrics and child health.

The particular research activities of the Institute vary with the immediate and long-term problems which present themselves. Fields of study have included rheumatic fever, scurvy, accidents, prematurity, hypothyroidism, and mental deficiency. Studies are undertaken into the problems of infants and children deprived of a normal home life. Members of the Institute staff are available for consultation by Commonwealth and State authorities and voluntary agencies.

Commonwealth Bureau of Dental Standards

This Bureau is concerned with research, standards and testing related to dental and allied materials and processes. It became part of the Department of Health in January 1947, but for the preceding eight years it was sponsored by the National Health and Medical Research Council. During that time the then Dental Materials Research Laboratory established itself as a recognized authority in its special field and proved to be of value to the defence services, government departments, the dental profession, and manufacturers of dental products. By maintaining the quality of dental materials and improving techniques for their use the Bureau continues to assist the dentist in his service to the community—a service that calls for restorations and appliances of a high degree of precision and permanence under very exacting conditions.

The Bureau operates under Section 9 of the *National Health Act* 1953–1964 and its functions are as follows: original research into dental equipment, materials, techniques and processes; regular reporting of the results of these investigations in recognized Australian scientific journals; the development of specifications for dental materials and equipment, through the Standards Association of Australia, in consultation with a committee representing the Commonwealth Department of Health, the Australian Dental Association, and manufacturers and distributors; and the provision of a consultative service and testing facilities for manufacturers and distributors of dental materials with a view to assisting them in the improvement of existing products and the development of new materials.

Australian Institute of Anatomy

The Australian Institute of Anatomy is situated in a building erected in Canberra by the Commonwealth Government under the *Zoological Museum Agreement Act* 1924. The Institute became part of the Commonwealth Department of Health in 1931, and a number of Health Department sections are now situated in the Institute. These include the Museum and Medical Artistry Section, the Nutrition Section, and a Veterinary Laboratory. The scientific research work of the Institute is concentrated on problems of nutrition, taking the form of field surveys of the dietary status of the Australian population and laboratory investigations into the biochemistry of nutrition and metabolism.

Control of infectious and contagious diseases

The provisions of the various Acts with regard to the compulsory notification of infectious diseases and the precautions to be taken against their spread are dealt with under the headings of quarantine and notifiable diseases.

Quarantine

The *Quarantine Act* 1908–1961 is administered by the Commonwealth Department of Health and has three sections of disease control, as follows: (i) human quarantine, which ensures that persons arriving from overseas are free of quarantinable disease; (ii) animal quarantine, which controls the importation of animals and animal products from overseas and the security of other animals present on vessels in Australian ports; and (iii) plant quarantine, which regulates the conditions of importation of all plants and plant products with the object of excluding plant diseases, insect pests and weeds.

In respect of interstate movements of animals and plants, the Act becomes operative only if the Governor-General considers that Commonwealth action is necessary for the protection of any State or States, and in general the administration of interstate movements of animals and plants is left in the hands of the States.

Human quarantine. All passengers and crews arriving in Australia from overseas, whether by air or sea, are subject to a medical inspection for the purpose of preventing the introduction of disease into Australia. At the major ports full-time quarantine officers carry out the work, but in the minor ports local doctors act as part-time quarantine officers. In each State, quarantine activities are controlled by the Commonwealth Director of Health, who is a medical officer of the Commonwealth Department of Health.

The main concern of the examining officers is to detect cases of the quarantinable diseases smallpox, cholera, yellow fever, plague, and typhus fever. These diseases are not endemic to Australia and it is of great importance to prevent their entry. Quarantine stations at the major ports and at Darwin and Townsville are kept ready for occupation at all times. In addition, persons arriving in Australia and suffering from infectious diseases such as chicken pox, mumps, scarlet fever, and measles are directed to appropriate care and placed in isolation where necessary.

Valid vaccination certificates are required of travellers to Australia as follows.

Cholera. All arrivals from infected areas and from India, Pakistan, Burma, Thailand, Vietnam, Malaysia, Philippines, and Indonesia. No certificate is required in respect of children under one year of age.

Yellow fever. All arrivals from yellow fever endemic zones.

Smallpox. All arrivals from all countries except British Solomon Islands, Fiji, Nauru, New Zealand, Norfolk Island, Ocean Island, Australian Territory of Papua and New Guinea, Gilbert and Ellice Islands Colony, Christmas (Indian Ocean), Cocos (Keeling), Heard, Kerguelen, Lord Howe, Macquarie and Tonga Islands; provided travellers have not been outside these areas for at least 14 days before arrival and that these areas are free of smallpox. Australia reserves the right, in respect of arrivals from other countries, to isolate any person who arrives by air without a smallpox vaccination certificate and refuses to be vaccinated. Children under one year of age are exempt. For passengers arriving in Australia by sea, exemption is granted to infants under twelve months of age and to persons who hold religious convictions against vaccination or who are suffering from a medical condition certified by a medical practitioner to contra-indicate smallpox vaccination.

All passengers, whether they arrive by sea or air, are required to give their intended place of residence in Australia, so that they may be traced if a case of disease occurs among the passengers on the aircraft or ship by which they travelled to Australia.

The numbers of cases of infectious (non-quarantinable) diseases which were discovered among the passengers and crew of overseas vessels and aircraft calling at Australian ports during 1964-65 and during the preceding four years are shown in the following tables.

HUMAN QUARANTINE: CASES OF INFECTIOUS (NON-QUARANTINABLE) DISEASES ON OVERSEA VESSELS AND AIRCRAFT CALLING AT AUSTRALIAN PORTS, 1964-65

Disease	Number of overseas vessels and aircraft on which cases were found	Number of cases of infectious disease	
		Passengers	Crew
Chicken pox . . .	42	109	5
Infectious hepatitis . .	7	8	1
Measles . . .	53	188	..
Meningitis . . .	1	1	..
Mumps . . .	12	12	1
Poliomyelitis . . .	1	1	..
Pulmonary tuberculosis .	6	..	6
Rubella . . .	6	13	..
Scarlet fever . . .	1	1	..
Venereal disease—			
Gonorrhoea . . .	5	..	5
Other . . .	1	..	1
Total . . .	(a) 107	333	19

(a) On some vessels there were cases of more than one disease.

**HUMAN QUARANTINE: OVERSEA VESSELS AND AIRCRAFT ARRIVING IN
AUSTRALIA AND CASES OF INFECTIOUS (NON-QUARANTINABLE)
DISEASE FOUND, 1960-61 TO 1964-65**

Year	Number of oversea vessels and aircraft cleared		Number of oversea vessels and aircraft on which cases were found	Number of cases of infectious disease	
	Ships	Aircraft		Passengers	Crew
1960-61 . . .	3,481	2,354	55	296	4
1961-62 . . .	3,761	2,417	67	221	15
1962-63 . . .	2,943	2,423	91	438	35
1963-64 . . .	3,184	2,620	92	361	11
1964-65 . . .	3,359	2,936	107	333	19

Animal quarantine. Animal quarantine, authorized by the provisions of the *Quarantine Act* 1908-1961, aims at preventing the introduction or spread of animal diseases. It covers the importation of all animals, raw animal products and biological cultures associated with animal diseases, and goods associated with animals.

Of the domesticated animals, only horses, dogs, cats and poultry are admitted from a limited number of countries depending on diseases being absent in the country of origin. All must be accompanied by health certificates which include prescribed tests. On arrival in Australia, they are subject to quarantine detention. Zoological specimens are imported into registered zoos, where they remain in permanent quarantine. Circuses are also registered if exotic species of animals are kept. In a similar manner, animals for scientific purposes are imported to approved laboratories. All these premises are kept under constant surveillance. Raw animal products such as hair, types of wool, skins and hides are specially treated under quarantine control. Such items as raw meat, sausage casings and eggs, which cannot be sterilized, are admitted from very few countries. Other items, such as harness fittings, fodder and ship's refuse, are treated to destroy any possible infection. Special attention is given to the importation of biological substances of animal origin. The Animal Quarantine Service is also responsible for the health certification of animals for export overseas in accordance with the requirements of the various countries.

The division of Veterinary Hygiene was created in 1926 to deal with the administration of animal quarantine. The central administration is situated within the Health Department at Canberra, with a director, an assistant director and veterinary officers. The Principal Veterinary Officer of the Department of Agriculture in each State is appointed Chief Quarantine Officer (Animals) of that State, and members of his staff Quarantine Officers (Animals). These State officers carry out the quarantine policy formulated by the central administration. Quarantine accommodation is provided in permanent animal quarantine stations at each capital city.

The Division participates in world-wide international notifications of the more serious contagious diseases of animals and maintains a census of such diseases throughout the world. Information regarding animal diseases and parasites in Australia is also collected and disseminated by means of service publications. Consultation on technical matters is maintained with various scientific institutions notably the Commonwealth Scientific and Industrial Research Organization. In matters of policy and the quarantine control of imports there is a close liaison with the Department of Customs and Excise.

The Division collaborates with the General and Plant divisions of the quarantine service. Many diseases of animals are communicable to man and for this reason animal and general quarantine administration are in some respects inseparable. Similarly the interests of animal and plant divisions overlap, many items such as insects, fodder and straw being the subject of combined control.

Every two years the director of the Division convenes the Biennial Conference of Principal Commonwealth and State Veterinarians, which meets under the auspices of the Australian Agricultural Council to discuss problems of animal health, disease control and animal quarantine.

Plant quarantine. Since 1 July 1909 the importation into Australia of all plants or parts of plants, cuttings, seeds and fruits, whether living or dead, has been subject to an increasingly stringent quarantine with the object of preventing the introduction of insect pests, plant diseases and weeds not yet established in this country. Under the *Quarantine Act* 1908-1961, quarantine inspectors are required to examine all plant material at the first port of entry and to release only material free from diseases and pests. Everyone entering Australia is required to declare if he or she has any plant material in luggage or personal effects. Heavy penalties are laid down for those found evading the regulations. All plant material entering as cargo must also be declared.

When the Commonwealth became responsible for all plant quarantine, the State Governments agreed to co-operate by providing and maintaining inspection facilities and personnel, for

which they are reimbursed by the Commonwealth. In 1921 the administration of the regulations came under the newly-formed Department of Health and in 1927 the Division of Plant Quarantine was created. It is controlled by a director who is responsible for policy and legislation and for co-ordinating the work of the State officers who carry out the detailed administration in their capacity as Commonwealth officers.

Any plant material found carrying diseases or pests, or suspected of doing so, may be ordered into quarantine for remedial treatment, or, if treatment is impracticable, may be destroyed. The cost of treatment is met by the importer. Regulations governing the different types of plants are based on the following broad principles. Importation of plants likely to be infected with plant diseases or pests, of noxious plants or fungi and of poison plants is prohibited. Agricultural seed, not restricted under quarantine legislation, must conform to standards of purity, and insect pest and disease freedom. Seed of commercial crops which could introduce diseases are prohibited imports except with special permission. All plant products not specifically restricted, such as timber, logs and crates, are subject to inspection upon arrival and treatment if necessary. Many commodities, including hops, cotton, peanuts in shell, potatoes and certain crop seeds, may be imported only by approved importers under specified conditions. All nursery stock, including bulbs, must be grown in post-entry quarantine. Prior approval is necessary, and such material may be imported only by approved importers who are registered for this purpose. The number of plants which may be imported in any one year is limited. The importation of propagating material of commercial fruits, vines and berries is permitted only after special prior approval and is subject to specific screening for virus by qualified authorities. Soil is a prohibited import, and any vehicles or goods contaminated with soil are required to be thoroughly cleaned, at the expense of the importer, before entry is permitted.

Notifiable diseases

Methods of prevention and control. Provision exists in the Health Acts of all States for the compulsory notification of certain infectious and other diseases and for the application of preventative measures. When any such disease occurs the local authority must be notified at once, and in some States notification must be made also to the Health Department.

As a rule, the local authorities are required to report from time to time to the Central Board of Health in each State on the health, cleanliness and general sanitary state of their several districts and on the appearance of certain diseases. Regulations provide for the disinfection and cleansing of premises and for the disinfection or destruction of bedding, clothing or other articles which have been exposed to infection. Regulations also provide that persons suspected to be suffering from, or to be carriers of, infectious disease must submit to clinical and laboratory examination. Persons suffering from certain communicable diseases, for example, smallpox and leprosy, are detained in isolation.

Notifiable diseases and cases notified, 1965. The following table shows, by State and Territory, the number of cases notified in 1965 for those diseases notifiable in all, or nearly all, States and Territories. In May 1965 the National Health and Medical Research Council at its Fifty-ninth Session proposed a basic list of diseases to be notifiable in each State and Territory, and this table is based upon that proposal. The table does not include all diseases which are notifiable in a State or Territory. Diseases on the basic list which are not yet notifiable are indicated by an asterisk. Factors such as the following affect both the completeness of the figures and the comparability from State to State and from year to year: availability of medical and diagnostic services; varying degrees of attention to notification of diseases; and enforcement and follow-up of notifications by Health Departments.

NOTIFIABLE DISEASES(a): NUMBER OF CASES NOTIFIED(b),
STATES AND TERRITORIES, 1965

Disease	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Anthrax . . . . .	*	..	..	..	..	..	..	..	(c) 79
Brucellosis	20	46	10	..	3	..	..	..	37
Diphtheria . . . . .	..	28	..	1	2	5	1	..	(d)
Gonorrhoea	3,935	1,543	1,335	(d) 4	453	199	213	52	(d) 6,741
Infectious hepatitis(e)	3,325	1,987	556	414	83	197	128	51	71
Leprosy . . . . .	..	1	1	..	18	..	51	..	(c) 10
Leptospirosis	10	..	75	1	14	..	..	..	4
Paratyphoid fever . . . . .	..	..	2	3	3	2	..	..	(d) 2,903
Poliomyelitis	3	..	..	..	..	1	..	..	18
Syphilis	604	82	155	(d) 9	9	3	6	2	8
Tetanus . . . . .	..	11	18	6	1	..	..	..	(c) 2,903
Tuberculosis(f)	1,027	790	639	156	148	71	61	11	18
Typhoid	5	6	..	1	2	..	3	1	8
Typhus (all forms)	2	2	4	..	..	..	..	..	..

(a) This table is based on a proposal made by the National Health and Medical Research Council at its 59th Session in May 1965 to recommend to State Health Departments a basic list of notifiable diseases.

(b) No cases of cholera, plague, smallpox or yellow fever were notified. (c) Not notifiable in one State; Australian figure not available. (d) Notifiable in South Australia from 4 November 1965; Australian figure not available. (e) Includes hepatitis, serum (homologous). (f) Queensland figure includes erythema nodosum and pleural effusion. * Not notifiable.

Tuberculosis and poliomyelitis. The number of new cases of tuberculosis notified in each State and Territory by age groups for the year 1965 is shown on page 563. Some data regarding deaths from tuberculosis are shown on page 263 of the chapter Vital Statistics. Cases of poliomyelitis notified in each State and Territory for the years 1961 to 1965 are shown on page 564.

Infectious hepatitis. The following table shows the number of cases of infectious hepatitis notified in each State and Territory during the years 1961 to 1965.

INFECTIOUS HEPATITIS: CASES NOTIFIED, STATES AND TERRITORIES, 1961 TO 1965

State or Territory	1961	1962	1963	1964	1965
New South Wales	6,050	3,358	2,822	2,731	3,325
Victoria	3,515	3,533	3,840	2,697	1,987
Queensland(a)	1,022	884	1,433	1,163	556
South Australia	1,406	504	293	289	414
Western Australia	262	117	145	101	83
Tasmania	304	630	856	636	197
Northern Territory	61	101	104	57	128
Australian Capital Territory	281	88	20	12	51
Australia	12,901	9,215	9,513	7,686	6,741

(a) Includes hepatitis, serum (homologous).

Venereal diseases. The prevention and control of venereal diseases are the responsibility of State Health Departments. The necessary powers for the purpose are provided either by a special Venereal Diseases Act or by a special section of the Health Act. Venereal disease was made a notifiable disease in South Australia in November 1965, and the disease is now notifiable in all States and Territories. While the provisions of the legislation differ from State to State, the Acts usually make it obligatory upon the patient to report for and continue under treatment until certified as cured. Treatment of venereal disease must be by a registered medical practitioner. Facilities for treatment of venereal disease free of charge may be arranged at subsidized hospitals or at special clinics. Penalties may be imposed on a patient who fails to continue under treatment. Clauses are inserted in the Acts which aim at preventing the marriage of any infected person, or the employment of an infected person in the manufacture or distribution of foodstuffs.

Commonwealth grants to organizations associated with public health

In addition to providing the services mentioned on pages 558-73, the Commonwealth Government gives financial assistance to certain organizations associated with public health. Examples of organizations included in this category are the National Fitness Organizations, the Royal Flying Doctor Service of Australia, the Red Cross Blood Transfusion Service, the Lady Gowrie Child Centres and the National Heart Foundation of Australia.

National fitness

In 1938, arising from a recommendation of the National Health and Medical Research Council, the Commonwealth Government appointed a National Co-ordinating Council for National Fitness, under the Commonwealth Minister for Health, to effect collaboration of Commonwealth, State, and local government authorities in the National Fitness Movement. Following the recommendations of the first Co-ordinating Council meeting in 1939, the Commonwealth Government agreed to make available an annual sum of \$40,000 for five years, and grants were allocated to each State for purposes of organization and to each of the six Australian universities to establish lectureships in physical education.

The movement was placed on a statutory basis with the passing of the *National Fitness Act* 1941. The Act provides for a Commonwealth Council for National Fitness to advise the Minister for Health concerning the promotion of national fitness. It provides also for the establishment of a Trust Account, known as the National Fitness Fund, to assist in financing the movement. In June 1942 the annual appropriation from revenue to the National Fitness Fund was increased to \$145,000 to include grants to the State Education Departments and for the work in the Australian Capital Territory. The annual appropriation was increased to \$200,000 in 1962, the increase of \$55,000 being made available to the National Fitness Councils in the States. The \$200,000 is disbursed as follows: State National Fitness Councils, \$128,908; Universities, \$24,800; State Education Departments, \$34,000; central administration, \$6,792; and Australian Capital

Territory, \$5,500. The annual grant of \$5,500 allocated in the Australian Capital Territory is distributed mainly on a \$1 for \$1 basis to youth and sports organizations for the purchase of equipment, the development of coaching schemes, and the extension of club and camp facilities.

Royal Flying Doctor Service of Australia

The purpose of the Royal Flying Doctor Service of Australia is to provide medical and dental services to persons in isolated areas. Most remote homesteads are equipped with two-way radio sets which they use for receiving ordinary radio programmes, participating in the School of the Air, and for contacting each other. In cases of minor illness or injury they also use these sets to seek medical advice. If the illness or injury is serious a doctor flies to the homestead and, if necessary, flies the patient to the nearest hospital. Standard medicine chests are supplied by the service. Each chest contains a first-aid book and instructions on the use of the various drugs and medical supplies. Further instructions are given by doctors over the air. From time to time special purpose work is undertaken in connection with flood relief, searching for lost parties, and co-ordinating cattle movements.

The service is not conducted for profit. In some sections small charges are made for particular services or a fixed annual charge is levied on graziers. Other sections rely on voluntary contributions from those who use the services. Donations and government contributions help to provide much of the overhead and capital expenditure incurred each year. The Commonwealth has made an annual grant to the service for operational expenses since 1936. The Commonwealth annual grant to the Royal Flying Doctor Service of Australia towards maintenance was increased from \$110,000 to \$150,000 per annum for three years from 1 July 1965. The Commonwealth grant towards capital expenditure was increased from \$80,000 to \$130,000 per annum for the same period. This capital expenditure grant is made on a \$1 for \$1 basis, in respect of approved projects.

The Royal Flying Doctor Service of Australia is conducted by a federal council comprising representatives of seven sections, namely Queensland, New South Wales, Victoria, South Australia, Western Australia, the Eastern Goldfields of Western Australia, and Tasmania. The Queensland, New South Wales, South Australian, and Tasmanian sections are centred in their own States, but in Western Australia there are three centres, that in the far north being under the control of the Victorian section and that in the south-east under the control of the Eastern Goldfields section. The third, which has bases at Port Hedland and Meekatharra, is sponsored by the Western Australian section.

Red Cross Blood Transfusion Service

The Australian Red Cross Society conducts a blood transfusion service in all States. The costs of the service are borne by a Commonwealth grant equal to 30 per cent of the certifiable operating expenses incurred by the Society in the conduct of the blood transfusion service in each State, payment by the Government of the State concerned of 60 per cent of the expenses, and payment by the Society of the remaining 10 per cent. The payments made by the Commonwealth Government to the State Governments in 1964-65 were as follows: New South Wales, \$109,656; Victoria, \$128,612; Queensland, \$90,202; South Australia, \$46,740; Western Australia, \$41,786; Tasmania, \$10,786; total, \$427,782. The Commonwealth also assists the Society to the extent of ninety per cent of the cost of operating blood transfusion services in the Northern Territory and the Australian Capital Territory.

Lady Gowrie Child Centres

In 1940 the Commonwealth Government established a pre-school demonstration centre in each of the six State capital cities. These centres are known as the Lady Gowrie Child Centres and are administered by local State committees under supervision of the Australian Pre-school Association located at Canberra. An annual grant is made available by the Commonwealth towards the operation of the centres, \$116,700 being allocated for 1964-65 and \$120,000 for 1965-66.

The specialized function of the centres is that of demonstration and research, and the programmes are carried out under the supervision of the Federal Pre-school Officer. Each centre is concerned with a study of the factors promoting and retarding physical and mental health in young children and in demonstrating an educational health programme based on the developing needs of children aged three to six years. The centres are used for observation by students of medicine, psychology, education, social studies, architecture, nursing and domestic science, and by student teachers.

Home Nursing Subsidy Scheme

The Home Nursing Subsidy Scheme provides payments to assist the expansion of home nursing activities. To be eligible for a subsidy an organization must be non-profit making and must receive assistance from a State Government, local government body or other authority established by or under a State Act. It must employ registered nurses. It is provided that Commonwealth subsidy must not exceed the amount of State assistance received by the

organization concerned. Eligible organizations established prior to November 1956 now receive \$2,000 a year in respect of each additional qualified nurse employed. New organizations established since November 1956 receive \$1,000 a year in respect of each qualified nurse employed. Expenditure during 1964-65 on the promotion of the Home Nursing Service was \$464,678. The Commonwealth subsidy paid to various district nursing organizations has led to the employment of 283 trained nurses.

National Heart Foundation of Australia

The National Heart Foundation of Australia is a national organization established to promote research in cardiovascular disease, to rehabilitate heart sufferers, and to foster the dissemination of information about heart diseases. Formed in 1960, as a result of a public appeal yielding \$5 million to which the Commonwealth Government contributed \$20,000, the Foundation has its headquarters in Canberra. The organization is controlled by a Board of Directors assisted by various Committees. State Divisions with their own administrations deal especially with rehabilitation and education. From its inception to the end of 1965 the Foundation has allocated over \$1 million for grants-in-aid towards research in university departments, hospitals and research institutes, research fellowships tenable in Australia and overseas, and overseas travel grants. Most of the annual expenditure of about \$600,000 is devoted to supporting research in cardiovascular disease.

INSTITUTIONS

Institutions referred to under this heading are classified into the following groups: (i) Public hospitals and nursing homes (referred to as 'public hospitals' in issues of the Year Book prior to No. 51, 1965); (ii) Mental hospitals; (iii) Private hospitals and nursing homes (previously referred to as 'private hospitals'); (iv) Repatriation hospitals; (v) Isolation (leper) hospitals.

Public hospitals and nursing homes

The statistics shown under the heading 'public hospitals and nursing homes' refer to institutions providing hospital and nursing home treatment, whether general or special, with the exception of mental hospitals, private hospitals and nursing homes, repatriation hospitals, and leper hospitals. They include institutions wholly provided for by the State, partially subsidized by the State or by State endowments but receiving private aid also, and hospitals established and endowed by individuals for the treatment of the sick generally. Public hospitals are premises of this kind in which patients are received and lodged exclusively for 'hospital' treatment, i.e. nursing care for the purpose of professional attention. Public nursing homes are such premises in which patients are received and lodged exclusively for the purpose of nursing home care, i.e. of a kind ordinarily provided in a benevolent home, convalescent home, home for aged persons or rest homes for patients requiring professional attention. The statistics shown under this heading agree in scope with those classified as public hospitals in issues of the Year Book prior to No. 51.

Number, staff and accommodation

Details regarding the number of public hospitals and nursing homes, staff, and accommodation for the year 1963-64 are given in the following table.

PUBLIC HOSPITALS AND NURSING HOMES: NUMBER, STAFF AND ACCOMMODATION, STATES AND TERRITORIES, 1963-64

—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Number of hospitals and nursing homes	266	151	140	66	92	28	4	1	748
Medical staff—									
Salaried	967	1,019	728	248	192	127	31	7	3,319
Other(a)	4,798	1,702	192	626	466	156	..	78	8,018
Total medical staff	5,765	2,721	920	874	658	283	31	85	11,337
Nursing staff(b)	15,758	11,007	6,307	3,387	3,427	1,624	240	356	42,106
Accommodation—									
Number of beds and cots	23,849	13,479	12,668	4,482	5,162	2,829	528	427	63,424

(a) Includes honorary and visiting medical officers. trainees, nursing aides, and nursing aide trainees.

(b) Qualified and student nurses, assistant nurse

In-patients treated

The following table gives particulars of in-patients treated. The figures shown refer to cases, that is to say, a person who is admitted to hospital or nursing home twice during a year is counted twice. Newborn babies are excluded unless they remain in hospital or nursing home after their mothers' discharge.

**PUBLIC HOSPITALS AND NURSING HOMES: IN-PATIENTS TREATED
STATES AND TERRITORIES, 1963-64**

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
In-patients at beginning of year—									
Males	7,271	4,030	4,005	1,379	1,492	894	186	94	19,351
Females	9,741	5,454	4,568	1,641	1,732	985	195	173	24,489
Persons	17,012	9,484	8,573	3,020	3,224	1,879	381	267	43,840
Admissions and re-admissions during year—									
Males	207,872	115,269	104,806	42,338	49,657	14,700	4,870	4,139	543,651
Females	311,574	183,876	130,640	54,133	59,413	22,257	5,498	7,199	774,590
Persons	519,446	299,145	235,446	96,471	109,070	36,957	10,368	11,338	1,318,241
Total in-patients (cases) treated—									
Males	215,143	119,299	108,811	43,717	51,149	15,594	5,056	4,233	563,002
Females	321,315	189,330	135,208	55,774	61,145	23,242	5,693	7,372	799,079
Persons	536,458	308,629	244,019	99,491	112,294	38,836	10,749	11,605	1,362,081
Discharges—									
Males	198,843	109,459	100,775	40,383	48,191	13,919	4,735	3,947	520,252
Females	303,624	178,440	127,472	52,595	58,157	21,595	5,419	7,026	754,328
Persons	502,467	287,899	228,247	92,978	106,348	35,514	10,154	10,973	1,274,580
Deaths—									
Males	8,467	5,761	3,802	1,833	1,365	739	128	176	22,271
Females	7,110	4,902	2,848	1,500	1,114	601	73	136	18,284
Persons	15,577	10,663	6,650	3,333	2,479	1,340	201	312	40,555
In-patients at end of year—									
Males	7,833	4,079	4,234	1,501	1,593	936	193	110	20,479
Females	10,581	5,988	4,888	1,679	1,874	1,046	201	210	26,467
Persons	18,414	10,067	9,122	3,180	3,467	1,982	394	320	46,946
Average daily number resident	17,181	9,497	8,471	3,005	3,284	1,898	378	290	44,004

In addition to those admitted to the hospitals and nursing homes, there are large numbers of out-patients treated. During 1963-64 there were 1,394,645 out-patients treated in New South Wales, 725,495 in Victoria, 679,356 in Queensland, 127,465 in South Australia, 163,000 (estimated) in Western Australia, 100,564 in Tasmania, 117,863 in the Northern Territory and 18,876 in the Australian Capital Territory, making an estimated total for Australia of 3,327,000. The figures quoted refer to cases, as distinct from persons and attendances.

Revenue and expenditure

Details of the revenue and expenditure for the year 1963-64 are shown in the next table. The revenue includes the Commonwealth Hospital Benefits Scheme. For some States expenditure on capital items out of individual hospitals' own funds are not included in the figures shown. Comparison between the States should therefore be made with caution.

**PUBLIC HOSPITALS AND NURSING HOMES: REVENUE AND EXPENDITURE
STATES AND TERRITORIES, 1963-64
(\$'000)**

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Revenue—									
Government aid	69881	43126	31131	12094	16,466	7,473	2,508	3,391	190,577
Commonwealth Hospital Benefits, etc.									
Municipal aid									
Public subscriptions, legacies, etc.	351	5,268	58	574	50	..	..	..	6,301
Fees	34,806	20,392	3,797	4,908	6,400	1,664	280	529	72,777
Other	1,314	1,694	3,847	983	135	15	..	16	8,005
Total revenue	106,353	70,565	38,833	21,166	25,358	9,153	2,851	3,937	278,216
Expenditure—									
Salaries and wages	60,801	33,095	20,359	11,001	12,733	4,430	1,334	1,166	144,918
Upkeep and repair of buildings and grounds	3,122	1,521	1,359	1,061	2,137	159	291	58	9,707
All other maintenance	26,796	23,887	13,639	5,424	5,813	2,157	700	452	78,868
Total maintenance	90,719	58,503	35,357	17,486	20,683	6,745	2,324	1,675	233,494
Capital	13,224	10,138	4,148	4,645	4,647	2,453	526	2,250	42,032
Total expenditure	103,843	68,641	39,505	22,132	25,331	9,198	2,851	3,925	275,526

Summary for Australia

A summary, for the years 1959-60 to 1963-64, of the number of public hospitals and nursing homes in Australia, medical and nursing staffs, beds, admissions, in-patients treated, out-patients, deaths, average daily number resident, revenue and expenditure is given in the following table.

PUBLIC HOSPITALS AND NURSING HOMES: AUSTRALIA, 1959-60 TO 1963-64

	1959-60	1960-61	1961-62	1962-63	1963-64
Hospitals and nursing homes	736	736	739	746	748
Medical staff(a)	9,954	10,386	10,535	11,022	11,337
Nursing staff(b)	36,023	37,607	39,082	40,211	42,106
Beds and cots	60,203	61,039	61,650	62,487	63,424
Admissions	1,153,690	1,182,198	1,235,665	1,267,092	1,318,241
Total in-patients (cases) treated	1,196,111	1,225,060	1,278,417	1,309,325	1,362,081
Deaths	35,407	36,619	37,569	38,530	40,555
Average daily number resident	40,672	41,009	42,166	42,926	44,004
Out-patients (cases)(c)	2,710,900	2,794,400	2,946,800	3,107,300	3,327,000
Revenue \$'000	197,953	218,798	239,787	258,271	278,216
Expenditure \$'000	195,975	217,112	239,548	254,753	275,526

(a) Honorary, visiting and salaried. (b) Qualified and student nurses, assistant nurses, assistant nurse trainees, nursing aides, and nursing aide trainees. (c) Partly estimated.

Mental hospitals

In addition to the mental hospitals proclaimed under the Lunacy and Mental Health Acts of the various States, the statistics shown in the following tables include other institutions providing accommodation and treatment of patients who are legally certified as requiring treatment for mental disorders. The statistics also include the number of voluntary patients in these institutions. With the exception of tables relating to revenue and expenditure, particulars of the two authorized hospitals conducted by religious organizations in New South Wales are included. Particulars of reception houses, observation wards in gaols, psychiatric clinics, and intellectual deficiency training centres are excluded.

Hospitals, staff and accommodation

Particulars of the number of hospitals, the medical and nursing staff, and accommodation are given in the following table for the year 1964. Figures for Victoria relate to 31 December 1964. Figures for the other States relate to 30 June 1964.

MENTAL HOSPITALS: NUMBER, STAFF, ACCOMMODATION, STATES, 1964

	N.S.W.	Vic. (a)	Qld (b)	S.A.	W.A.	Tas.	Aust.
Number of hospitals	15	10	5	2	6	1	39
Medical staff—							
Males	120	124	17	20	17	6	304
Females	25	19	3	4	..	..	51
Persons	(c)145	143	20	24	17	6	(c)355
Nursing staff and attendants—							
Males	1,482	1,254	675	313	236	117	4,077
Females	1,635	1,446	543	305	242	119	4,290
Persons	3,117	2,700	1,218	618	478	236	8,367
Accommodation—							
Number of beds and cots	13,279	9,586	4,322	2,442	1,923	850	32,402

(a) 31 December 1964. (b) Includes the Epileptic Home. (c) Includes 47 visiting specialists in New South Wales who are paid for their services.

Patients

Information regarding patients treated during 1963-64 is given in the following table. The figures include voluntary patients in all States with the exception of South Australia.

Persons who are well advanced towards recovery are allowed to leave the hospitals and live with their relatives or friends, but they are under supervision and their names are kept in the records. These persons have been included in the table below as patients at the end of the year.

MENTAL HOSPITALS: PATIENTS, DEATHS, ETC., STATES, 1963-64

—	N.S.W.	Vic. (a)	Qld (b)	S.A. (c)	W.A. (d)	Tas.	Aust.
Number of patients at beginning of year—							
Males	6,937	4,128	2,412	1,246	1,358	340	16,421
Females	6,810	4,201	1,787	975	1,036	347	15,156
Persons	13,747	8,329	4,199	2,221	2,394	687	31,577
Admissions and readmissions (excluding absconders retaken and transfers from other mental hospitals)—							
Males	3,666	1,931	947	335	933	358	8,170
Females	4,098	1,862	807	222	670	306	7,965
Persons	7,764	3,793	1,754	557	1,603	664	16,135
Number of persons treated during year—							
Males	10,603	6,059	3,359	1,581	2,291	698	24,591
Females	10,908	6,063	2,594	1,197	1,706	653	23,121
Persons	21,511	12,122	5,953	2,778	3,997	1,351	47,712
Discharges—							
Males	3,477	1,466	873	340	920	331	7,407
Females	4,027	1,636	852	208	776	266	7,765
Persons	7,504	3,102	1,725	548	1,696	597	15,172
Deaths—							
Males	426	428	137	78	62	25	1,156
Females	542	528	86	77	50	20	1,303
Persons	968	956	223	155	112	45	2,459
Number of patients at end of year—							
Males	6,700	4,165	2,349	1,163	1,309	342	16,028
Females	6,339	3,899	1,656	912	880	367	14,053
Persons	13,039	8,064	4,005	2,075	2,189	709	30,081
Number of patients at end of year per 1,000 of population—							
Males	3.4	2.62	2.91	2.23	3.26	1.85	2.85
Females	3.09	2.48	2.12	1.78	2.26	2.04	2.54
Persons	3.17	2.55	2.52	2.01	2.77	1.94	2.69

(a) Year ended 31 December 1964. (b) Includes persons treated at the Epileptic Home. (c) Excludes voluntary patients. (d) The period of collecting of these statistics in Western Australia was changed in 1964 from a calendar to a fiscal year and therefore figures for that State for 1963-64 are partially included in statistics for the year ended 31 December 1963.

Revenue and expenditure

Mental hospitals are maintained by the State Governments. They derive a small proportion of their revenue from other sources (chiefly patients' fees, pharmaceutical benefits and sale of farm produce), but in 1963-64 these sources provided less than 8 per cent of all their revenue. For a statement on the funds provided by the Commonwealth Government for mental hospitals, see page 560. In New South Wales the expenditure includes the cost of Broken Hill patients treated in South Australian mental hospitals.

MENTAL HOSPITALS: FINANCES, STATES, 1963-64

(\$'000)

—	N.S.W. (a)	Vic. (b)	Qld (c)	S.A.	W.A. (d)	Tas.	Aust.
Revenue (excluding Government Grants)—							
Fees of patients	1,764	516	234	152	165	57	2,889
Other	113	868	23	67	135	9	1,215
<i>Total revenue</i>	<i>1,877</i>	<i>1,384</i>	<i>258</i>	<i>219</i>	<i>300</i>	<i>66</i>	<i>4,104</i>
Expenditure—							
Salaries and wages	11,137	10,905	3,396	1,868	1,903	817	30,026
Upkeep and repair of buildings, etc.	656	5,019	110	341	78	37	16,556
All other	5,962		1,882	1,196	877	398	
<i>Total, maintenance</i>	<i>17,755</i>	<i>15,923</i>	<i>5,388</i>	<i>3,405</i>	<i>2,858</i>	<i>1,252</i>	<i>46,582</i>
Capital(e)	3,758	3,522	158	349	1,043	732	9,562
<i>Total expenditure</i>	<i>21,512</i>	<i>19,446</i>	<i>5,546</i>	<i>3,753</i>	<i>3,901</i>	<i>1,984</i>	<i>56,143</i>

(a) Excludes the two authorized hospitals conducted by religious organizations. (b) Includes institutions in addition to the ten hospitals. (c) Includes the Epileptic Home. (d) Comprises whole of receipts and payments of mental health services, including expenditure by other Departments for this purpose. (e) Capital expenditure includes purchases of land, cost of new buildings and additions to buildings.

Summary for Australia

The following table gives a summary relating to mental hospitals in Australia for each of the years 1959-60 to 1963-64.

MENTAL HOSPITALS: SUMMARY, AUSTRALIA, 1959-60 TO 1963-64

—	1959-60	1960-61	1961-62	1962-63	1963-64
Hospitals	40	40	38	39	39
Medical staff(a)	281	297	346	373	355
Nursing staff and attendants	7,106	7,412	7,587	7,914	8,367
Beds and cots	32,191	32,170	32,113	32,607	32,402
Admissions(b)	9,982	13,395	14,637	17,091	16,135
Discharges(b)	9,171	10,963	13,278	15,676	15,172
Deaths(b)	2,403	2,289	2,327	2,368	2,459
Patients at end of year(b)	32,282	34,110	32,256	31,303	30,081
Revenue (excluding Government grants) \$'000	2,276	2,920	3,203	3,658	4,104
Total expenditure \$'000	40,710	44,151	48,696	50,740	56,143

(a) Includes visiting specialists who are paid for their services, as follows: 1960, 44; 1961, 43; 1962, 57; 1963, 54; and 1964, 47. (b) Excludes voluntary patients in South Australia.

Patients in mental hospitals

The total number of inmates of mental hospitals and patients on trial leave each year from 1960 to 1964 is shown in the following table. A more rational attitude towards the treatment of mental cases has resulted in a greater willingness in recent years to submit afflicted persons to treatment at an early stage, and an increase in the number of recorded cases, therefore, would not necessarily imply an increase in mental diseases. The numbers of patients in mental hospitals in the several States is affected to some extent by differences in practice. For instance, in some States there is a greater tendency to treat certain mental diseases in clinics attached to general hospitals.

PATIENTS IN MENTAL HOSPITALS(a): STATES, 1960 TO 1964

State	1960	1961	1962	1963	1964
New South Wales	12,665	14,486	14,233	13,747	13,039
Victoria	9,600	9,773 (b)	8,440	8,329	8,064
Queensland(c)	4,364	4,311	4,272	4,199	4,005
South Australia(d)	2,564	2,506	2,409	2,221	2,075
Western Australia	2,302	2,279	2,134	2,120 (e)	2,189
Tasmania	787	755	768	687	709
Australia	32,282	34,110	32,256	31,303	30,081

(a) Figures for Victoria and Western Australia relate to the number of patients on the books of mental hospitals at 31 December of the year stated and figures for the other States relate to 30 June of the year stated. (b) Excludes patients in two institutions listed as mental hospitals in previous years but re-classified in 1962 as mental deficiency training centres. (c) Includes persons treated at the Epileptic Home. (d) Excludes voluntary patients. (e) At 30 June.

Private hospitals and nursing homes

In addition to the other hospitals and nursing homes referred to in previous sections, there are private hospitals and nursing homes in each State. The figures shown in the following table refer to those private hospitals and nursing homes which have been approved for the payment of hospital benefits under the Commonwealth *National Health Act* 1953-1965. Statistical information on patients, staff and finance of these institutions is not available on a uniform Australia-wide basis.

PRIVATE HOSPITALS AND NURSING HOMES: STATES AND TERRITORIES
1960 TO 1964

State or Territory	30 June				
	1960	1961	1962	1963	1964

NUMBER OF PRIVATE HOSPITALS AND NURSING HOMES

New South Wales	444	461	474	507	527
Victoria	256	254	260	272	288
Queensland	79	92	116	130	136
South Australia	144	143	156	173	165
Western Australia	74	79	85	85	85
Tasmania	33	32	34	39	41
Northern Territory . . . . .	..	..	..	..	..
Australian Capital Territory . . . . .	..	..	..	..	..
Australia	1,030	1,061	1,125	1,206	1,242

NUMBER OF BEDS FOR PATIENTS

New South Wales	8,864	9,678	10,563	11,482	12,647
Victoria	5,013	4,998	5,556	5,896	6,371
Queensland	2,162	2,445	2,943	3,350	3,818
South Australia	2,796	2,866	3,440	3,755	3,983
Western Australia	1,799	1,945	2,381	2,549	2,627
Tasmania	665	687	763	870	925
Northern Territory . . . . .	..	..	..	..	..
Australian Capital Territory . . . . .	..	..	..	..	..
Australia	21,299	22,619	25,646	27,902	30,371

Repatriation hospitals

The medical care of eligible ex-servicemen and dependants of deceased ex-servicemen is a major function of the Commonwealth Repatriation Department (*see* the chapter Repatriation), which provides a comprehensive service.

In-patient treatment is provided at Repatriation General Hospitals in each capital city; in addition, there are auxiliary hospitals in all States except Tasmania. 'Anzac Hostels' are maintained in Queensland and Victoria for long-term patients. In-patient treatment may also be provided in country hospitals at the Department's expense in certain circumstances. Mental patients requiring custodial care are, by agreement with the State Governments, accommodated at the expense of the Department in mental hospitals administered by the State authorities.

The average daily number of patients resident in the six Repatriation General Hospitals and nine auxiliary hospitals during the year ended 30 June 1965 was 3,896. The number of medical, nursing and other staff employed at these institutions at 30 June 1965 was 5,963 and a further 525 were employed at Repatriation out-patient clinics and limb and appliance centres. Total expenditure by Repatriation institutions during 1964-65 was \$21,593,458.

Isolation (leper) hospitals

There are four isolation hospitals in Australia for the care and treatment of persons suffering from Hansen's disease (leprosy). The numbers of isolation patients at these hospitals on 31 December 1965, were: Little Bay (New South Wales), 10; Fantome Island (North Queensland), 14; Derby (Western Australia), 178; and East Arm Settlement (Northern Territory), 43. In addition, there were 60 voluntary patients resident in the East Arm Settlement, mostly for the purpose of reconstructive surgery. This type of patient was included in figures for East Arm Settlement published in previous issues of the Year Book. With the exception of the Little Bay lazaret, nursing services are provided mostly by Sisters of religious orders under supervision of Government medical officers.

Special wards for the isolation and treatment of leprosy patients are also provided at other centres. The location of these wards and the numbers of isolation patients resident at 31 December 1965, were: Concord Repatriation Hospital (New South Wales), 1; Fairfield (Victoria), 8; Princess Alexandra Hospital (Queensland), 4; and Wooroloo (Western Australia), nil.

Of the total 258 cases in isolation, 204 were full-blood Aborigines, 21 were others of Aboriginal blood, 3 were Pacific Islanders, 2 were Asians, 7 were of mixed race, and 21 were Europeans.

CHAPTER 18

EDUCATION, CULTURAL ACTIVITIES AND RESEARCH

For the most recent statistics available on subjects dealt with in this chapter reference should be made to the series of mimeographed bulletins *Social Statistics* issued by this Bureau. The *Quarterly Summary of Australian Statistics* contains summarized information on these subjects, and financial aspects are dealt with in the annual bulletins *Commonwealth Finance and State, Territory and Local Government Authorities' Finance and Government Securities*. The Annual Reports of the respective State Education Departments provide detailed statistical and other information concerning particular States.

EDUCATION

An account of the development of the Australian school system up to 1929 may be found in Year Books Nos. 1, 2, 17 and 22. In Year Book No. 40 a review of changes which occurred up to 1951 and of the practices then current was presented from material furnished by the Commonwealth Office of Education, which contributed much of the textual matter in the following sections.

Education in Australian schools

Administration and organization

In Australia the provision of schools is mainly the responsibility of State Governments. During the nineteenth century all six Australian colonies had established systems of compulsory education, beginning with the *Education Act 1872* in Victoria, and followed by similar Acts in Queensland (1875), South Australia (1875), New South Wales (1880), Tasmania (1893), and Western Australia (1893). These Acts, with subsequent amendments, constitute the legal basis of compulsory education in the Australian States to-day.

School attendance is compulsory throughout Australia between the ages of six and fifteen at least. The minimum leaving age is fifteen years in New South Wales, Victoria, Queensland, and South Australia, and sixteen years in Tasmania, while in Western Australia attendance is compulsory until the end of the year in which the child turns fifteen years. The Education Acts require that all children between the prescribed ages must attend either a government school or some other recognized educational institution. Children may be exempted from the requirement of compulsory attendance if they live too far from a school or suffer a physical disability. These children usually receive correspondence tuition.

The school year in Australia begins at the end of January or early in February; it ends in mid-December. The long vacation is taken over the summer months (December to February) and two short vacations divide the school year into three terms.

At government primary schools it is usual for both boys and girls to attend the same school; at the secondary level practices vary, but the trend is towards mixed schools. Non-government schools cater mainly for boys and girls separately.

Government school systems

Government schools, except in the Commonwealth Territories, are a responsibility of the six State Governments. Although the educational systems are not identical, they have many similar features. Responsibility for framing educational policy and having it put into effect rests with a Minister for Education, who is a member of the State Cabinet. The administrative authority in each State is an Education Department headed by a Director-General or Director of Education. Separate divisions of the Education Department in each State administer primary, secondary and technical education (in New South Wales there is a separate Department of Technical Education). Other divisions look after such matters as the recruitment and training of teachers, pupil guidance, research, and the education of atypical children. In some States administration has been decentralized to a degree by the appointment of 'Area' or 'Regional' directors, who are responsible for policy in the area which they control.

Tuition at government primary and secondary schools is free in all States. Parents are usually expected to bear the cost of text-books, uniforms and charges for such things as the use of sports materials. However, income tax concessions exist in respect of these expenditures for both government and non-government systems, and certain text-book costs are subsidized in the case of pupils attending government and non-government schools in some States.

Non-government schools systems

More than 80 per cent of the children at non-government primary and secondary schools attend Roman Catholic schools, which form a highly developed but not centralized system. At the primary level these children normally attend mixed parish schools, but at the secondary level there are boys' schools, approximately half taking boarders, and girls' schools. Some of the small convent schools in country districts enrol young boys as well as girls. The organization of Roman Catholic schools is primarily on a diocesan basis under the general direction of the bishop, although many of the religious orders which conduct schools are Australia-wide, and have their own internal organization.

The majority of other non-government schools, sometimes known as 'private' or 'independent' schools, are conducted by, or are under the auspices of, various religious denominations, particularly the Church of England, Presbyterian and Methodist Churches. Others are conducted by the Baptist, Lutheran, Congregational, and Seventh-day Adventist Churches and by smaller religious groups. There are Jewish schools in several capital cities. A few non-government schools, including some of the foremost, are undenominational and conducted under the auspices of corporate bodies.

The methods adopted by the educational authorities to ensure an acceptable standard of education at non-government schools vary from State to State. In New South Wales, Victoria, Western Australia, and Tasmania these schools are regularly inspected. In Victoria and Tasmania, schools and teachers must be registered. In Queensland eight grammar schools which exist by statutory authority and are subsidized by the State are subject to annual inspection. Other non-government schools in Queensland and also those in South Australia are not subject to inspection.

The principals of a number of the larger non-government schools have formed organizations with both State and Australia-wide coverage, namely, the Headmasters' Conference of Australia and the Headmistresses' Association of Australia.

Schools and courses

Primary education in government schools. Though school attendance is not compulsory until the age of six, most Australian children begin school when they are five, attending infants' schools or infants' classes attached to a primary school. In some States the first year in the infants' department is known as 'kindergarten'. The emphasis in infants' classes, which occupy two or three years, is on general development, play activities and the informal aspects of education, with a gradual shift towards more formal activities in the second and third years. Creative expression through drawing, dancing, handiwork, dramatization, painting and similar activities is encouraged. Attention is given to speech training and to activities with music. At the end of their infants' school training most children are able to read with some fluency, carry out simple arithmetical operations founded on the basic number facts, and write in pencil. In addition, they have acquired elementary skills in art, music and the like.

At about the age of eight most children pass into the primary school proper, where they usually spend four or five years. Primary schools are normally provided when and where there is sufficient population to justify them. Irrespective of the size or the location of the school, standards of tuition do not vary appreciably, because teachers within a State follow similar courses of training and transfer freely between metropolitan and country areas. The Education Departments prescribe syllabuses of instruction, which are drawn up with the assistance of expert committees. The primary syllabuses have an emphasis on basic subjects like reading, writing, arithmetic, social studies, and oral language, but the teacher has some freedom to modify courses to suit local circumstances and the varying abilities of his students.

Children attend primary schools in their own districts, usually within walking distance of their homes, on five days each week. The school day is broken up into three or four sessions by a lunch break and by a morning and sometimes an afternoon recess. The total period of instruction is four and a half to five hours daily with individual subject lessons lasting twenty to thirty minutes. Periods are set aside for physical education and sport. One teacher generally has charge of a class and teaches it all the subjects set out in the curriculum for the particular grade.

Pupils do not, as a rule, sit for a public examination during or at the end of their primary course, and progression from primary to secondary school is automatic. Allocation to particular schools or particular courses is based on the recommendations of the headmaster, general ability tests, tests of achievement in the basic subjects, and parents' wishes. In South Australia pupils may proceed to secondary school on receiving the Progress Certificate, which is awarded on satisfactory completion of the seventh grade, the highest grade at primary level.

Secondary education in government schools. The age of transfer from a government primary to secondary school is usually between twelve and thirteen. Most secondary schools are co-educational, although separate schools for boys and girls are not uncommon in capital cities. In the cities and larger country centres secondary courses are provided in separate schools from primary courses, but in less populous areas secondary classes sometimes share buildings with primary classes.

The secondary student takes up new studies such as foreign languages and technical or commercial subjects, and moves on to more specialized studies in natural and social sciences and mathematics. The study of basic subjects begun in primary school is continued. The actual subjects studied depend on the ability of the pupil and the type of school. A school day is divided into 'periods' and the children are taught by a number of teachers, each specializing in a particular subject or group of subjects.

In the past, to meet the varying abilities and needs of students, various kinds of secondary schools were established in which different types of education were provided, although in country areas secondary schools tended of necessity to be comprehensive and offered a full range of secondary courses. But following the re-examination by expert committees in all States of the problems associated with the provision of appropriate secondary education for all, significant changes in the structure and curricula of secondary schools are taking place. In New South Wales, for example, following a committee's recommendation that the secondary curriculum should offer a core of common basic education to all students, secondary schools have become comprehensive. Pupils of different aptitudes and interests in a given locality now attend the same secondary school, undertake this core of common basic studies, and in addition specialize according to their proven abilities and interests.

The most common type of secondary school is the comprehensive or multi-purpose high school, which offers a wide range of subjects. To cater for this diversity of subjects, most high schools now have modern facilities for the teaching of domestic science, commercial subjects, woodwork and other technical subjects. In some States there are still, however, separate high schools specializing in technical, commercial or home science subjects. In some States there are also a few separate agricultural high schools, some of them residential. The curriculum consists of general educational subjects and practical farm training. There are also 'area' and 'rural' schools offering up to three years of secondary study, and in some States courses in agriculture are also given at high schools.

Primary and secondary education in non-government schools. Non-government schools follow curricula similar to those laid down by Education Departments, and prepare their students for examinations conducted by public examining authorities. Most non-government schools are comprehensive type schools, providing a range of subjects and courses at various levels. Although there are similarities between non-government and government schools in the courses they provide, more emphasis is given to the religious training of pupils in denominational schools. A few schools, mostly Roman Catholic secondary schools, specialize in agricultural and technical courses. Non-government schools offer some facilities additional to those normally found in government schools, such as personal tuition in music, ballet, etc. A few are organized on 'experimental' lines.

Examinations

During the course of secondary education State-wide examinations are taken at two levels. The earlier examination qualifies pupils for entry to trade courses at technical colleges and agricultural colleges, to junior commercial positions in, for instance, insurance and banking, to nursing and secretarial courses, to lower grades of the public service, and to industry. The examination at the end of the secondary school course qualifies students for entry to teachers' colleges, the higher grades of the public service, and commercial occupations; this examination is also the qualification for entry to the university, certain subjects and combinations of subjects being set down as the matriculation requirements by the respective universities.

In most States the higher examination is controlled by a board consisting of representatives of the Department of Education, the universities, non-government schools, and sometimes of other bodies such as teachers' organizations. A brief description of the examinations in each State follows.

New South Wales. For pupils who commenced their secondary education in 1961 or earlier, the secondary course was of five years duration with an Intermediate Certificate Examination taken at the end of three years, at about the age of fifteen, and the Leaving Certificate Examination (Matriculation) taken after a further two years. For pupils who commenced their secondary education in 1962 or later, the full secondary course is of six years' duration, with a School Certificate Examination at the end of the fourth year, age about sixteen, and a Higher School Certificate Examination (Matriculation) after a further two years. The last Intermediate and Leaving Certificate Examinations under the old system will be conducted in 1966. Thereafter pupils who leave school before gaining their School Certificate will receive a signed statement of attainment from their school principal.

Victoria. The Intermediate Examination is taken at the end of the fourth secondary year, at about the age of sixteen, the School Leaving Examination at the end of fifth year, and the Matriculation Examination at the end of sixth year. Pupils at approved non-government schools and certain government schools may be accredited for the Intermediate and Leaving by passing examinations set by their own schools.

Queensland. The Junior Public Examination is taken at the end of third year, at about the age of fifteen and a half. The Senior Public Examination conducted by the University of Queensland is taken at the end of fifth year, at about the age of seventeen and a half, and matriculation is obtained on results in this examination.

South Australia. The Intermediate Examination is taken at the end of the third year, at about the age of fifteen and a half. The Leaving Examination is taken at the end of the fourth year and up to 1965 matriculation was gained on results in this examination. From 1966 matriculation will be gained from a Matriculation Examination to be held at the end of the fifth year.

Western Australia. The Junior Certificate Examination is taken at the end of third year, at about the age of fifteen and a half. Students who pursue a less academic course may take the High School Certificate Examination at this level. The Leaving Certificate Examination is taken at the end of fifth year, at an average age of seventeen and a half, and matriculation is gained on results in this examination.

Tasmania. The Schools Board Certificate Examination is taken at the end of the fourth year, at about the age of sixteen and a half, and the Matriculation Examination conducted by the University of Tasmania at the end of the fifth or sixth year.

Numbers of schools, teachers and pupils

The statistics which follow relate generally to schools providing education according to the primary or secondary school curricula of the various State Education Departments, or both, whether provided in government or non-government schools. Junior technical schools, correspondence schools, and schools in institutional homes, hospitals and similar establishments are included. Institutions providing only pre-school education, senior technical and agriculture colleges, evening schools, continuation classes, and institutions such as business colleges and coaching establishments are, as a rule, excluded.

School censuses are conducted annually at or about the beginning of August throughout all States and Territories of Australia. The numbers of pupils in the tables which follow refer to enrolments at the school census date. The numbers of schools and teachers refer to the position at dates which vary from State to State and in some instances from year to year. While it has not been possible to present all figures on a uniform basis between States, continuity of the figures for any one State over the period of years shown has been maintained as far as possible. Particulars relating to senior technical colleges are given on pages 597-600.

Schools, teachers and pupils

The numbers of government and non-government schools, teachers, and pupils for 1965 and earlier years are shown in the following tables.

NUMBERS OF SCHOOLS AND PUPILS, BY CATEGORY OF SCHOOL STATES AND TERRITORIES, 1965

Category of school	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
SCHOOLS									
Government	2,692	2,232	1,336	675	544	296	41	28	7,844
Non-government—									
Denominational—									
Church of England	35	33	21	12	9	4	..	3	117
Hebrew	2	7	..	..	1	..	..	..	10
Lutheran	3	8	3	13	..	2	1	..	28
Methodist	6	4	(a) 5	4	3	1	4	..	27
Presbyterian	13	14	6	2	2	..	..	..	39
Roman Catholic	668	485	300	130	180	50	11	14	1,838
Seventh-day Adventist	18	8	5	4	5	3	..	..	43
Other . . . . .	..	4	1	2	2	1	5	..	15
Undenominational	61	19	9	5	2	3	5	..	104
<i>Total, non-government</i>	<i>806</i>	<i>582</i>	<i>350</i>	<i>172</i>	<i>204</i>	<i>64</i>	<i>26</i>	<i>17</i>	<i>2,221</i>
Grand total	3,498	2,814	1,686	847	748	360	67	45	10,065

(a) Presbyterian and Methodist Schools Association.

NUMBERS OF SCHOOLS AND PUPILS, BY CATEGORY OF SCHOOL STATES AND TERRITORIES, 1965—continued

Category of school	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
PUPILS (CENSUS ENROLMENT)									
Government	653,436	504,120	262,225	202,636	140,951	71,615	6,943	15,194	1,857,120
Non-government—									
Denominational—									
Church of England	12,320	15,467	5,463	4,312	3,573	1,843	..	1,170	44,148
Hebrew	351	2,194	..	..	125	..	..	..	2,670
Lutheran	246	591	837	1,496	..	..	128	..	3,298
Methodist	2,863	3,885	(a) 2,130	2,042	1,480	343	544	..	13,287
Presbyterian	5,470	8,008	1,079	1,478	1,161	627	..	..	17,823
Roman Catholic	185,717	145,952	69,638	26,606	30,877	10,505	1,565	5,538	476,398
Seventh-day Adventist	1,072	569	254	140	433	144	..	..	2,612
Other . . . . .	..	2,221	133	476	150	972	480	..	4,432
Undenominational	6,580	3,719	3,879	1,316	60	254	81	..	15,889
Total, non-government	214,619	182,606	83,413	37,866	37,859	14,688	2,798	6,708	580,557
Grand total	868,055	686,726	345,638	240,502	178,810	86,303	9,741	21,902	2,437,677

(a) Presbyterian and Methodist Schools Association.

NUMBERS OF TEACHERS: STATES AND TERRITORIES, 1965(a)

State or Territory	Government schools			Non-government schools			All schools		
	Full-time	Part-time		Full-time	Part-time		Full-time	Part-time	
		No.	Eq. f.t.u. (b)		No.	Eq. f.t.u. (b)		No.	Eq. f.t.u. (b)
New South Wales	26,831	878	415	6,842	1,743	443	33,673	2,621	858
Victoria	20,083	c 1,816	c 1,134	5,551	1,149	278	25,634	2,965	1,412
Queensland	9,316	696	56	2,543	492	107	11,859	1,188	163
South Australia	7,872	468	143	1,252	355	114	9,124	823	257
Western Australia	4,934	119	39	1,247	186	46	6,181	305	85
Tasmania	3,231	194	55	509	150	29	3,740	344	84
Northern Territory	282	4	1	(d) 72	1	..	354	5	1
Australian Capital Territory	596	34	24	240	28	6	836	62	30
Total	73,145	4,209	1,867	18,256	4,104	1,023	91,401	8,313	2,890

(a) Excludes teachers-in-training generally. (b) The methods used for calculating equivalent full-time units of part-time teaching vary from State to State, between government and non-government schools, and between primary and secondary schools within States. For most schools the information is based on either the total hours worked or total number of class periods taken in a week by part-time teachers, in relation to the normal hours worked or periods taken by full-time teachers. (c) A large proportion of male part-time teachers in Victoria are engaged in junior technical schools. A teacher is included as part-time if his teaching time at a junior technical school is less than 32 hours a week. (d) Excludes unqualified teachers and teaching assistants at mission schools.

NUMBERS OF SCHOOLS AND PUPILS: AUSTRALIA, 1961 TO 1965

	1961	1962	1963	1964	1965
Schools—					
Government	7,965	7,941	7,910	7,872	7,844
Non-government	2,149	2,178	2,193	2,205	2,221
Total schools	10,114	10,119	10,103	10,077	10,065
Pupils(a)—					
Government	1,664,062	1,713,265	1,756,538	1,801,364	1,857,120
Non-government	527,197	539,887	552,759	565,415	580,557
Total pupils	2,191,259	2,253,152	2,309,297	2,366,779	2,437,677

(a) Census enrolment.

**NUMBERS OF TEACHERS, BY CATEGORY OF SCHOOL
STATES AND TERRITORIES, 1965(a)**

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Government schools—									
Full-time	26,831	20,083	9,316	7,872	4,934	3,231	282	596	73,145
Part-time—									
Number	878 ^b	1,816	696	468	119	194	4	34	4,209
Eq. f.t.u.(c)	415 ^b	1,134	56	143	39	55	1	24	1,867
Non-government schools—									
Baptist—									
Full-time . . . . .	..	109	..	(d) 23	..	..	..	..	132
Part-time—									
Number . . . . .	..	24	..	(d) 3	..	..	..	..	27
Eq. f.t.u.(c) . . . . .	..	7	..	(d) 1	..	..	..	..	8
Church of England—									
Full-time	751	871	286	225	190	97	..	75	2,495
Part-time—									
Number	187	168	40	41	59	31	..	2	528
Eq. f.t.u.(c)	71	45	20	15	16	8	..	1	176
Hebrew—									
Full-time	22	151	..	..	7	..	..	..	180
Part-time—									
Number	3	22	..	..	1	..	..	..	26
Eq. f.t.u.(c)	1	8	..	..	..	..	..	..	9
Lutheran—									
Full-time	14	24	35	65	..	..	4	..	142
Part-time—									
Number	4	1	7	22	..	..	..	..	34
Eq. f.t.u.(c)	1	..	3	4	..	..	..	..	8
Methodist—									
Full-time	165	203 ^(e)	97	97	74	19	18	..	673
Part-time—									
Number	38	36 ^(e)	16	17	17	5	..	..	129
Eq. f.t.u.(c)	25	11 ^(e)	5	8	7	1	..	..	57
Presbyterian—									
Full-time	310	423	66	70	68	36	..	..	973
Part-time—									
Number	64	96	16	25	8	21	..	..	230
Eq. f.t.u.(c)	24	33	3	13	1	4	..	..	78
Roman Catholic—									
Full-time	5,003	3,513	1,878	703	876	283	32	165	12,453
Part-time—									
Number	1,328	702	384	216	95	82	1	26	2,834
Eq. f.t.u.(c)	279	140	69	58	20	13	..	5	584
Seventh-day Adventist—									
Full-time	58	34	10	10	24	10	..	..	146
Part-time—									
Number	23	6	..	1	5	1	..	..	36
Eq. f.t.u.(c)	5	2	..	..	2	..	..	..	9
Other denominational—									
Full-time . . . . .	..	13	2	..	5	52	13	..	85
Part-time—									
Number . . . . .	..	5	..	..	..	8	..	..	13
Eq. f.t.u.(c) . . . . .	..	1	..	..	..	3	..	..	4
Undenominational—									
Full-time	519	210	169	59	3	12	5	..	977
Part-time—									
Number	96	89	29	30	1	2	..	..	247
Eq. f.t.u.(c)	37	31	7	15	..	..	..	..	90
Total, non-government schools—									
Full-time	6,842	5,551	2,543	1,252	1,247	509 ^(f)	72	240	18,256
Part-time—									
Number	1,743	1,149	492	355	186	150	1	28	4,104
Eq. f.t.u.(c)	443	278	107	114	46	29	..	6	1,023
Grand total—									
Full-time	33,673	25,634	11,859	9,124	6,181	3,740	354	836	91,401
Part-time—									
Number	2,621	2,965	1,188	823	305	344	5	62	8,313
Eq. f.t.u.(c)	858	1,412	163	257	85	84	1	30	2,890

(a) Excludes teachers-in-training generally. (b) A large proportion of male part-time teachers in Victoria are engaged in junior technical schools. A teacher is included as part-time if his teaching time at a junior technical school is less than 32 hours a week. (c) For basis of calculating equivalent full-time units of part-time teaching see footnote (b) page 586. (d) Baptist and Congregational. (e) Schools conducted by the Presbyterian and Methodist Schools Association. (f) Excludes unqualified teachers and teaching assistants at mission schools.

**NUMBERS OF TEACHERS: GOVERNMENT AND NON-GOVERNMENT SCHOOLS(a)
STATES AND TERRITORIES, 1961 TO 1965**

	Government schools			Non-government schools			All schools		
	Number of full-time teachers	Part-time teachers		Number of full-time teachers	Part-time teachers		Number of full-time teachers	Part-time teachers	
		Number	Eq. f.t.u. (b)		Number	Eq. f.t.u. (b)		Number	Eq. f.t.u. (b)
New South Wales—									
1961 . . .	(c)22,739			5,789	1,569	n.a.	n.a.	n.a.	n.a.
1962 . . .	(c)23,330			6,019	1,555	n.a.	n.a.	n.a.	n.a.
1963 . . .	(c)24,672			6,215	1,586	n.a.	n.a.	n.a.	n.a.
1964 . . .	(c)25,993			6,541	1,621	n.a.	n.a.	n.a.	n.a.
1965 . . .	26,831	878	415	6,842	1,743	443	33,673	2,621	858
Victoria—									
1961 . . .	16,476		n.a.	4,860		n.a.	21,336		n.a.
1962 . . .	17,724		n.a.	5,102		n.a.	22,826		n.a.
1963 . . .	17,373 (d) 1,668		n.a.	5,038	978	n.a.	22,411	2,646	n.a.
1964 . . .	19,026 (d) 1,568		n.a.	5,326	1,004	n.a.	24,352	2,572	n.a.
1965 . . .	20,083 (d) 1,816		1,134	5,551	1,149	278	25,634	2,965	1,412
Queensland—									
1961 . . .	8,257	857	n.a.	2,262	414	n.a.	10,519	1,271	n.a.
1962 . . .	8,583	805	n.a.	2,331	459	n.a.	10,914	1,264	n.a.
1963 . . .	8,810	854	n.a.	2,333	468	n.a.	11,143	1,322	n.a.
1964 . . .	9,058	819	n.a.	2,472	539	n.a.	11,530	1,358	n.a.
1965 . . .	9,316	696	56	2,543	492	107	11,859	1,188	163
South Australia—									
1961 . . .	5,870	451	n.a.	1,104	338	n.a.	6,974	789	n.a.
1962 . . .	6,312	432	n.a.	1,130	324	n.a.	7,442	756	n.a.
1963 . . .	6,895	431	n.a.	1,165	319	n.a.	8,060	750	n.a.
1964 . . .	7,340	477	n.a.	1,231	329	n.a.	8,571	806	n.a.
1965 . . .	7,872	468	143	1,252	355	114	9,124	823	257
Western Australia—									
1961 . . .	4,117	108	n.a.	1,110		n.a.	n.a.	n.a.	n.a.
1962 . . .	4,241	91	18	1,097	96	n.a.	5,338	187	n.a.
1963 . . .	4,471	74	17	1,148	n.a.	44	5,619	n.a.	61
1964 . . .	4,713	103	16	1,188	141	32	5,901	244	48
1965 . . .	4,934	119	39	1,247	186	46	6,181	305	85
Tasmania—									
1961 . . .	2,479	109	n.a.	497	73	n.a.	2,976	182	n.a.
1962 . . .	2,797	111	n.a.	503	94	n.a.	3,300	205	n.a.
1963 . . .	2,919	183	n.a.	509	85	n.a.	3,428	268	n.a.
1964 . . .	3,016	141	n.a.	503	132	n.a.	3,519	273	n.a.
1965 . . .	3,231	194	55	509	150	29	3,740	344	84
Northern Territory—									
1961 . . .	158	6	n.a.	(e) 54	1	n.a.	212	7	n.a.
1962 . . .	182	2	n.a.	(e) 61	1	n.a.	243	3	n.a.
1963 . . .	207	4	n.a.	(e) 68	1	n.a.	275	5	n.a.
1964 . . .	239	6	n.a.	(e) 65	..	n.a.	304	6	n.a.
1965 . . .	282	4	1	(e) 72	1	..	354	5	1
Australian Capital Territory—									
1961 . . .	(c)400			129	37	n.a.	n.a.	n.a.	n.a.
1962 . . .	(c)463			160	32	n.a.	n.a.	n.a.	n.a.
1963 . . .	(c)476			183	18	n.a.	n.a.	n.a.	n.a.
1964 . . .	(c)554			215	27	n.a.	n.a.	n.a.	n.a.
1965 . . .	596	34	24	240	28	6	836	62	30

(a) Excludes teachers-in-training generally. (b) For basis of calculating equivalent full-time units for part-time teachers, see footnote (b) on page 586. (c) Includes numbers of full-time teachers (including casual teachers) and part-time casual teachers expressed in equivalent full-time units, for government schools. (d) A large proportion of male part-time teachers in Victoria is engaged in junior technical schools. A teacher is included as part-time if his teaching time at a junior technical school is less than 32 hours a week. (e) Excludes unqualified teachers and teaching assistants at mission schools.

Ages of pupils

The ages of pupils at school census dates for 1965 and earlier years are shown in the following tables.

**GOVERNMENT AND NON-GOVERNMENT SCHOOLS: PUPILS, BY AGE AND SEX
AUSTRALIA, 1965**
(Census enrolment)

Age last birthday (years)	Government schools			Non-government schools			Total		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total (a)
Under 6 . . .	78,193	73,717	151,910	22,220	22,105	44,325	100,413	95,822	196,235
6	92,610	87,644	180,254	25,955	25,956	51,911	118,565	113,600	232,165
7	90,945	85,795	176,740	25,567	25,953	51,520	116,512	111,748	228,260
8	89,321	83,507	172,828	25,339	26,031	51,370	114,660	109,538	224,198
9	89,077	82,253	171,330	24,733	25,466	50,199	113,810	107,719	221,529
10	86,831	81,279	168,110	24,528	25,826	50,354	111,359	107,105	218,464
11	85,536	79,525	165,061	24,490	25,349	49,839	110,026	104,874	214,900
12	85,782	78,624	164,406	24,309	27,192	51,501	110,091	105,816	215,907
13	84,414	76,534	160,948	23,436	26,194	49,630	107,850	102,728	210,578
14	80,175	72,510	152,685	21,732	24,922	46,654	101,907	97,432	199,339
15	59,029	48,656	107,685	18,706	20,302	39,008	77,735	68,958	146,693
16	32,509	23,052	55,561	13,586	12,552	26,138	46,095	35,604	81,699
17	14,364	8,565	22,929	8,260	5,371	13,631	22,624	13,936	36,560
18 and over . .	4,920	1,753	6,673	3,329	1,148	4,477	8,249	2,901	11,150
Total . . .	973,706	883,414	1,857,120	286,190	294,367	580,557	1,259,896	1,177,781	2,437,677

(a) Includes Aboriginal children.

SCHOOLS: PUPILS, BY AGE, STATES AND TERRITORIES 1965
(Census enrolment)

Age last birthday (years)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.(a)
Under 6 . . .	81,419	58,508	19,544	18,719	7,710	7,225	871	2,239	196,235
6	82,017	64,334	34,263	22,597	17,574	8,112	1,113	2,155	232,165
7	81,689	62,800	33,114	21,676	17,499	8,206	1,078	2,198	228,260
8	78,796	62,032	32,983	21,970	17,422	7,983	1,060	1,952	224,198
9	77,157	61,186	32,930	21,485	17,777	8,049	1,030	1,915	221,529
10	76,344	60,180	32,670	21,203	17,584	7,698	996	1,789	218,464
11	76,180	58,778	31,755	21,084	16,850	7,548	873	1,832	214,900
12	77,439	58,800	31,569	21,231	16,864	7,411	827	1,766	215,907
13	74,666	57,473	30,841	20,856	16,850	7,430	734	1,728	210,578
14	71,792	55,482	27,328	20,319	15,057	7,167	546	1,648	199,339
15	50,397	43,362	19,991	15,968	9,777	5,537	385	1,276	146,693
16	27,312	26,465	10,599	8,865	4,807	2,584	152	915	81,699
17	10,425	13,101	5,718	3,538	2,338	995	61	384	36,560
18 and over . .	2,422	4,225	2,333	991	701	358	15	105	11,150
Total . . .	868,055	686,726	345,638	240,502	178,810	86,303	9,741	21,902	2,437,677

(a) Includes Aboriginal children.

SCHOOLS: PUPILS, BY AGE AND SEX, AUSTRALIA, 1961 TO 1965
(Census enrolment)

Age last birthday (years)	1961		1962		1963		1964		1965 (b)	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Under 6 . . .	90,219	85,518	91,801	88,208	95,454	91,544	97,651	93,404	100,413	95,822
6	107,069	102,905	110,551	104,032	112,486	107,528	114,888	109,812	118,565	113,600
7	106,046	101,615	108,735	104,722	112,251	105,595	113,685	108,423	116,512	111,748
8	106,902	103,090	106,567	102,267	109,026	104,940	111,882	106,358	114,660	109,538
9	105,561	100,303	107,531	103,527	106,932	102,944	109,601	105,826	113,810	107,719
10	104,860	100,516	106,418	101,299	109,020	104,124	108,446	103,905	111,359	107,105
11	104,298	99,549	105,413	100,722	107,441	102,169	109,593	105,278	110,026	104,874
12	100,687	95,897	104,823	99,480	105,461	101,110	107,342	102,220	110,091	105,816
13	100,986	95,538	100,160	95,567	104,744	99,760	105,434	100,668	107,850	102,728
14	99,348	90,987	93,321	86,377	93,578	87,336	99,617	94,053	101,907	97,432
15	58,341	47,706	74,412	61,759	71,323	59,772	71,619	61,317	77,735	68,958
16	30,339	22,127	35,384	24,920	44,182	32,741	43,843	33,045	46,095	35,604
17			15,147	8,670	17,709	10,117	22,826	13,642	22,624	13,936
18 and over . .	16,760	8,478	4,947	1,476	5,428	1,693	7,072	2,290	8,249	2,901
Not stated a	2,777	2,837	2,436	2,480	1,412	1,477	1,549	1,540		
Total . . .	1,134,193	1,057,066	1,167,646	1,085,506	1,196,447	1,112,850	1,225,048	1,141,731	1,259,896	1,177,781

(a) Comprises Aboriginal children at special schools whose ages were not collected.

(b) Aboriginal children included in specified age groups.

Grades of pupils

The numbers of pupils enrolled in grades in each State and Territory are shown in the following table. The grading of pupils differs for the various school systems in Australia because of the differences in curricula set by Education Departments. In addition, the methods of allocating classes to grades vary from State to State, and there are also differences in the administrative methods of aggregating grades of a more or less similar nature. The figures presented in these tables represent essentially the system of grading adopted in each different State and are therefore not comparable between States.

**GOVERNMENT AND NON-GOVERNMENT SCHOOLS: PUPILS, BY GRADE, ETC.
AND SEX, STATES AND TERRITORIES, 1965**

Grade, year or form	Government schools			Non-government schools			All schools		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total

Infants—									
Kindergarten . . .	33 720	31,311	65,031	10,827	10,807	21,634	44,547	42,118	86,665
1	38,096	35,147	73,243	10,445	10,055	20,500	48,541	45,202	93,743
2	34,447	32,191	66,638	10,272	10,181	20,453	44,719	42,372	87,091
Primary—									
3	33,011	30,544	63,555	9,971	9,866	19,837	42,982	40,410	83,392
4	32,099	29,942	62,041	9,542	9,817	19,359	41,641	39,759	81,400
5	31,234	29,425	60,659	9,494	9,647	19,141	40,728	39,072	79,800
6	30,354	28,837	59,191	9,332	10,019	19,351	39,686	38,856	78,542
Special primary grades . . .	3,479	2,363	5,842	904	748	1,652	4,383	3,111	7,494
Secondary—									
1st (or 7)	30,883	28,202	59,085	9,170	10,053	19,223	40,053	38,255	78,308
2nd (or 8)	28,490	26,624	55,114	8,389	9,186	17,575	36,879	35,810	72,689
3rd (or 9)	22,090	20,377	42,467	7,559	8,284	15,843	29,649	28,661	58,310
4th	13,021	10,834	23,855	5,775	5,749	11,524	18,796	16,583	35,379
5th	9,593	6,152	15,745	4,952	3,575	8,527	14,545	9,727	24,272
Special secondary grades . . .	712	258	970	..	..	..	712	258	970
Total	341,229	312,207	653,436	106,632	107,987	214,619	447,861	420,194	868,055

1(a)	50,293	45,808	96,101	16,130	15,720	31,850	66,423	61,528	127,951
2	24,474	22,564	47,038	8,591	8,345	16,936	33,065	30,909	63,974
3	23,943	22,075	46,018	8,165	8,474	16,639	32,108	30,549	62,657
4	23,706	21,687	45,393	8,343	8,416	16,759	32,049	30,103	62,152
5	22,986	21,287	44,273	8,018	8,120	16,138	31,004	29,407	60,411
6	22,355	20,761	43,116	8,122	8,424	16,546	30,477	29,185	59,662
Ungraded(b) . . .	1,325	844	2,169	136	142	278	1,461	986	2,447
7 or I	24,654	21,817	46,471	7,057	8,387	15,444	31,711	30,204	61,915
8 or II	23,543	20,557	44,100	6,218	7,957	14,175	29,761	28,514	58,275
III	21,214	17,782	38,996	5,801	7,024	12,825	27,015	24,806	51,821
IV	15,601	12,822	28,423	5,295	6,022	11,317	20,896	18,844	39,740
V	8,979	6,462	15,441	4,236	4,273	8,509	13,215	10,735	23,950
VI	3,742	2,839	6,581	3,079	2,111	5,190	6,821	4,950	11,771
Total	266,815	237,305	504,120	89,191	93,415	182,606	356,006	330,720	686,726

Primary—									
Preparatory . . .				386	354	740	386	354	740
I	16,200	14,661	30,861	4,609	4,403	9,012	20,809	19,064	39,873
II	14,917	13,740	28,657	4,010	3,911	7,921	18,927	17,651	36,578
III	14,308	13,423	27,731	3,792	3,819	7,611	18,100	17,242	35,342
IV	14,269	13,144	27,413	3,630	3,735	7,365	17,899	16,879	34,778
V	13,766	12,929	26,695	3,721	3,797	7,518	17,487	16,726	34,213
VI	13,345	12,668	26,013	3,423	3,627	7,050	16,768	16,295	33,063
VII	13,230	12,282	25,512	3,673	3,940	7,613	16,903	16,222	33,125
Ungraded	1,090	523	1,613	42	36	78	1,132	559	1,691
Secondary—									
1st	12,038	11,135	23,173	3,922	4,071	7,993	15,960	15,206	31,166
2nd	10,604	10,070	20,674	3,553	3,722	7,275	14,157	13,792	27,949
3rd	8,431	7,800	16,231	3,367	3,572	6,939	11,798	11,372	23,170
4th	2,421	1,771	4,192	1,900	1,480	3,380	4,321	3,251	7,572
5th	2,026	1,434	3,460	1,818	1,100	2,918	3,844	2,534	6,378
Total	136,645	125,580	262,225	41,846	41,567	83,413	178,491	167,147	345,638

(a) In Victoria children who are expected to reach five years of age by 1 July are admitted at the beginning of the school year. The younger children may not reach grade 2 until they have been in school for two years.

(b) Pupils at certain special schools classified as primary.

GOVERNMENT AND NON-GOVERNMENT SCHOOLS: PUPILS, BY GRADE, ETC.
AND SEX, STATES, ETC., 1965—continued

Grade, year or form	Government schools			Non-government schools			All schools		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
SOUTH AUSTRALIA									
Pre-primary . . .	..	..	..	132	122	254	132	122	254
Kindergarten . .	2,274	2,208	4,482	..	..	..	2,274	2,208	4,482
I	12,183	11,202	23,385	2,184	2,228	4,412	14,367	13,430	27,797
II	10,369	9,618	19,987	1,655	1,742	3,397	12,024	11,360	23,384
III	10,452	9,658	20,110	1,661	1,746	3,407	12,113	11,404	23,517
IV	10,179	9,663	19,842	1,583	1,785	3,368	11,762	11,448	23,210
V	10,180	9,369	19,549	1,679	1,707	3,386	11,859	11,076	22,935
VI	9,931	9,210	19,141	1,632	1,744	3,376	11,563	10,954	22,517
VII	9,487	8,761	18,248	1,574	1,660	3,234	11,061	10,421	21,482
Ungraded(a) . .	1,142	789	1,931	11	14	25	1,153	803	1,956
VIII or 1st . . .	10,057	9,014	19,071	1,572	1,851	3,423	11,629	10,865	22,494
IX or 2nd . . .	8,242	7,619	15,861	1,502	1,712	3,214	9,744	9,331	19,075
X or 3rd	6,867	6,238	13,105	1,495	1,697	3,192	8,362	7,935	16,297
XI or 4th . . .	3,540	2,582	6,122	1,225	1,031	2,256	4,765	3,613	8,378
5th	1,166	621	1,787	622	300	922	1,788	921	2,709
Ungraded(b) . .	10	5	15	..	..	..	10	5	15
Total	106,079	96,557	202,636	18,527	19,339	37,866	124,606	115,896	240,502

WESTERN AUSTRALIA

Primary—									
Kindergarten . .	..	..	..	140	195	335	140	195	335
1	8,081	7,465	15,546	2,061	1,932	3,993	10,142	9,397	19,539
2	7,406	6,975	14,381	1,707	1,835	3,542	9,113	8,810	17,923
3	7,670	6,947	14,617	1,771	1,795	3,566	9,441	8,742	18,183
4	7,583	6,750	14,333	1,649	1,728	3,377	9,232	8,478	17,710
5	7,437	7,011	14,448	1,515	1,789	3,304	8,952	8,800	17,752
6	6,868	6,557	13,425	1,453	1,744	3,197	8,321	8,301	16,622
7	6,875	6,495	13,370	1,449	1,806	3,255	8,324	8,301	16,625
Special classes(c) .	833	411	1,244	..	..	..	833	411	1,244
Secondary—									
1	6,906	6,133	13,039	1,734	2,045	3,779	8,640	8,178	16,818
2	6,289	5,571	11,860	1,516	1,929	3,445	7,805	7,500	15,305
3	4,782	4,177	8,959	1,507	1,568	3,075	6,289	5,745	12,034
4	1,544	1,156	2,700	872	809	1,681	2,416	1,965	4,381
5	1,036	674	1,710	729	581	1,310	1,765	1,255	3,020
Special classes(c) .	278	175	453	..	..	..	278	175	453
Special schools(c) .	515	351	866	..	..	..	515	351	866
Total	74,103	66,848	140,951	18,103	19,756	37,859	92,206	86,604	178,810

TASMANIA

Pre-school . . .	1,222	1,209	2,431	54	38	92	1,276	1,247	2,523
Primary—									
Kindergarten . .	1,034	1,035	2,069	195	169	364	1,229	1,204	2,433
1	5,206	4,626	9,832	948	955	1,903	6,154	5,581	11,735
2	3,636	3,350	6,986	676	622	1,298	4,312	3,972	8,284
3	3,688	3,407	7,095	571	663	1,234	4,259	4,070	8,329
4	3,636	3,369	7,005	613	641	1,254	4,249	4,010	8,259
5	3,359	3,208	6,567	577	627	1,204	3,936	3,835	7,771
6	3,282	3,234	6,516	598	687	1,285	3,880	3,921	7,801
Secondary—									
I	3,468	3,155	6,623	734	850	1,584	4,202	4,005	8,207
II	3,336	3,014	6,350	636	735	1,371	3,972	3,749	7,721
III	2,771	2,608	5,379	550	708	1,258	3,321	3,316	6,637
IV	1,569	1,307	2,876	551	597	1,148	2,120	1,904	4,024
V	393	355	748	223	233	456	616	588	1,204
VI	275	127	402	117	103	220	392	230	622
Special schools(c) .	431	305	736	..	17	17	431	322	753
Total	37,306	34,309	71,615	7,043	7,645	14,688	44,349	41,954	86,303

(a) Pupils in special centres and classes at primary levels. (b) Speech and hearing classes at secondary level. (c) For physically and mentally, etc., handicapped children.

GOVERNMENT AND NON-GOVERNMENT SCHOOLS: PUPILS, BY GRADE, ETC.
AND SEX, STATES, ETC., 1965—*continued*

Grade, year or form	Government schools			Non-government schools			All schools		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
NORTHERN TERRITORY									
Kindergarten . . .	24	20	44	..	..	..	24	20	44
I	562	478	1,040	83	99	182	645	577	1,222
II	296	276	572	84	71	155	380	347	727
III	350	310	660	65	66	131	415	376	791
IV	314	263	577	50	46	96	364	309	673
V	290	288	578	41	58	99	331	346	677
VI	260	231	491	42	42	84	302	273	575
VII	225	199	424	27	48	75	252	247	499
Ungraded(a) . . .	12	9	21	..	..	..	12	9	21
VIII or 1st . . .	167	179	346	18	34	52	185	213	398
IX or 2nd	143	150	293	8	12	20	151	162	313
X or 3rd	110	110	220	3	17	20	113	127	240
XI or 4th	41	29	70	..	..	..	41	29	70
5th	14	3	17	..	..	..	14	3	17
Ungraded(b) . . .	820	770	1,590	926	958	1,884	1,746	1,728	3,474
Total	3,628	3,315	6,943	1,347	1,451	2,798	4,975	4,766	9,741

AUSTRALIAN CAPITAL TERRITORY

Infants—									
Kindergarten . . .	849	830	1,679	385	349	734	1,234	1,179	2,413
1	971	838	1,809	366	316	682	1,337	1,154	2,491
2	783	718	1,501	347	311	658	1,130	1,029	2,159
Primary—									
3	743	708	1,451	306	304	610	1,049	1,012	2,061
4	719	747	1,466	253	279	532	972	1,026	1,998
5	665	592	1,257	277	289	566	942	881	1,823
6	672	670	1,342	269	242	511	941	912	1,853
Special primary grades(a) . . .	81	44	125	..	..	..	81	44	125
Secondary—									
1st	657	574	1,231	301	315	616	958	889	1,847
2nd	547	594	1,141	293	258	551	840	852	1,692
3rd	489	471	960	250	257	507	739	728	1,467
4th	382	283	665	244	164	408	626	447	1,073
5th	343	224	567	210	123	333	553	347	900
Total	7,901	7,293	15,194	3,501	3,207	6,708	11,402	10,500	21,902

(a) Opportunity classes. (b) Mainly Aboriginal children at special schools at missions and pastoral stations.

Teacher training and recruitment

Teachers for government schools

Recruitment of teachers. The teacher shortage evident in past years has now been overcome to a certain extent. Some States have no difficulty in recruiting and training sufficient staff to meet the present needs of primary schools. Despite expanded training programmes the shortage of secondary school teachers has proved a greater problem, especially in mathematics and science.

State Education Departments recruit most prospective teachers for government service from students leaving schools after a secondary course. Each Department offers training awards annually on the basis of academic merit and personal suitability. The traineeships cover the cost of a teacher training course (which may include university studies) and provide a living allowance. Students are usually required to enter into a bond to serve for a specified number of years in the government schools of the State where they have trained. In some States intending teachers can obtain a scholarship at Intermediate Certificate level to enable them to complete teachers' college entrance requirements. Such an award entails a bond of service for a longer period.

Training of primary school teachers. In most States teachers for government primary schools are trained in teachers' training colleges controlled and administered by the State Education Departments. These colleges are described on page 616. Generally, the duration of courses for primary teachers is two years. The basic subjects taken in the various courses are history and

principles of education, general and special methods of teaching in the primary school, school organization, and educational psychology. In addition, students undertake courses in English (including speech training), mathematics, handicrafts, music, art, social studies, natural science, and physical and health education. Optional subjects may include dramatic art, visual aids, and so on. Supervised practice teaching in schools and the observation of demonstration lessons form part of all training courses. Since primary teachers in Australia may be called upon at some time to teach grouped classes in a small school or a 'one-teacher' school, special training for this kind of work is included in their course.

Training of secondary school teachers. Secondary teachers are normally specialists in a combination of subjects, such as English and history, modern languages, or mathematics and science. Intending secondary school teachers are normally required to complete a university degree and a year of professional training qualifying for a Diploma in Education. The degree courses followed are usually in arts, science, or economics, with the major studies providing the essential background for future subject teaching. During the post-graduate or professional year the student takes such subjects as the history and principles of education, comparative education, educational psychology, and special teaching methods. Training also includes practice teaching under the supervision of teachers' college and university staff, and the observation of demonstration lessons.

At several Australian universities students wishing to take up teaching as a profession can receive their professional training along with the study of their teaching subjects as part of a first degree course in Education. The time taken to complete such a Bachelor of Education degree course is four years.

Training for specialist teaching. Teachers of specialist subjects, such as music, art, manual arts, domestic science, and commercial subjects, receive from two to five years training which varies according to the institution concerned and the type of secondary school in which the teacher is to serve. In several States the shorter courses are provided wholly by the teachers' colleges. In five States teachers of music receive their specialist training at conservatoria of music. Where the specialist course is given at an institution other than the teachers' college—e.g. at a university, technical college, or conservatorium of music—as is usual for teachers of specialist subjects in high schools, trainees are required to attend teachers' college or university lectures in education, and in some cases the specialist course is followed by a year of professional training. Courses designed to train physical education teachers are offered in universities in all States, and in three States at a teachers' college as well.

Training for teachers of agricultural subjects in secondary schools is available in five States and consists of either an agricultural college diploma or a university degree course together with professional training. In Victoria there is also a two-year agricultural college diploma course which follows on the normal two-year primary teachers' course. Teachers of technical subjects in secondary schools may be trained in manual or industrial arts courses of two to four years duration, at teachers' colleges, technical colleges, or, in one State, at a university. These courses include basic training in such subjects as wood and metal work, and geometrical drawing. In Victoria there is a separate Technical Teachers' College. Some teachers of trade subjects in technical schools are recruited from the ranks of qualified tradesmen engaged in industry or commerce. These teachers upon appointment usually receive instruction in classroom teaching techniques and procedures.

In-service training. As almost all teachers now enter the profession by way of teachers' colleges or universities, where they receive basic professional training, in-service training in Australia is directed chiefly towards keeping teachers abreast of developments and adding to their basic training. In-service training usually takes the form of short courses held sometimes during vacations, sometimes during school-time or in the evening. In some States in-service courses for teachers in remote areas are provided by correspondence. Courses consist of discussions and lectures given by senior staff members of Education Departments and university and teachers' college lecturers on such subjects as classroom techniques and supervision, librarianship, visual aids, music, arts and crafts, and physical education. In some States there are also in-service courses for special groups of teachers such as headmasters or teachers in one-teacher schools. In addition, district inspectors are responsible for organizing short conferences of teachers, where professional topics are discussed. Education Departments encourage teachers to pursue university courses and in some States pay the cost of courses undertaken by selected teachers.

In 1965 and 1966 groups of Australian teachers again attended refresher courses in New Caledonia for Australian and New Zealand teachers of French. These courses were offered to the Australian Government by the French Government. The official publications of the Education Departments contain articles dealing with educational theory and practice. Magazines of the teachers' organizations, which reach the majority of government teachers, also contain articles of this type.

Status of teachers. Most teachers in governmental schools are permanent public servants and have security of tenure, superannuation rights, and the right of appeal in matters of promotion. The centralized education systems and the general policy of providing fully trained teachers for both city and country areas mean that teachers are subject to transfer to any part of the State in which they serve. It is common for a teacher's first appointment to be to a country school.

In each State there is a union of State school teachers and these together form a federal body, the Australian Teachers' Federation. Their aim is to advance the teachers' status and conditions and to stimulate community interest in educational problems.

Training of non-government school teachers

Teachers for non-government schools receive their training in a number of ways. The Roman Catholic Church staffs both its primary and secondary schools mainly with members of religious orders whose training has been obtained in conformity with the requirements of the particular order concerned. In recent years there has been a growth in the number of lay teachers being employed in Catholic schools, and training of students to become lay primary teachers has been instituted. Secondary teachers receive their academic training mostly through courses provided by Australian universities.

Other non-government schools tend to recruit their staffs from teachers who have already obtained qualifications in Australia or overseas. In New South Wales and Victoria non-government school authorities offer courses designed specially for teachers in their schools. Non-government schools recruit also university graduates who are then given professional guidance by senior members of the school staff. In some instances private students may enrol at government teachers' colleges on payment of a fee, but the number of places available is limited. Some teachers destined for non-government schools train in this way.

During vacations many non-government teachers attend in-service training courses organized by Education Departments. In recent years vacation courses have been provided by bodies other than Education Departments for teachers from both government and non-government schools. For example, an independent body, the Nuclear Research Foundation, has provided such courses for teachers of science in secondary schools in New South Wales. The training of pre-school teachers is carried out in five States in kindergarten training colleges set up by the Kindergarten Unions. These are described on page 616.

Other aspects of school education

Information relating to school medical and dental services is given in the chapter Public Health, and particulars of School Savings Banks in the chapter Private Finance.

Provisions for isolated areas

Although the task of bringing education to isolated areas in Australia presents problems, all education authorities have aimed at providing opportunities for country children comparable to those available to city children. Country children follow the same curricula (with local adaptation, if desirable) and are under the guidance of teachers who are trained for service in country and city schools alike.

In areas where there are sufficient children of school age a 'one-teacher' school may be formed with all primary grades in a single classroom under the control of the one teacher. Special training is given to teachers undertaking work of this kind. Children who complete a primary course in a one-teacher school and cannot attend a secondary school may do secondary correspondence lessons under the teacher's supervision.

In districts where a number of small centres are scattered around a larger centre or country town the tendency is to close the one-teacher schools and transport pupils each day by buses to a 'consolidated' school in the larger centre. Consolidated schools provide primary instruction and from two to four years of post-primary instruction. The post-primary curriculum adopted is usually directed towards practical activities and training in subjects bearing on the primary industries of the locality.

Where a group of children is too small to warrant the establishment of a one-teacher school at public expense a 'subsidized' school may be opened. The Education Department pays part of the cost and in some States appoints a teacher. Some States also administer 'provisional' schools, which are completely financed by the Government but which are not large enough, or sufficiently assured of adequate continued attendance of pupils, to warrant classification as permanent schools.

Correspondence schools. These have been established in each State capital city to meet the needs of children whose daily attendance at school is prevented by distance between home and school, by illness or by physical disability. The correspondence schools also cater for inmates of penal institutions, Australian children overseas, pupils of other schools in which particular courses are not available, student teachers, members of the Defence Forces, and other adults completing their secondary education. Where children are involved, lessons are done with the help of a supervisor, usually a member of the child's family, and posted back to the correspondence school in the capital city, where they are corrected and returned with helpful comments. Every endeavour is made to maintain a personal link between teacher and pupil. Correspondence schools began with primary grades only, but were soon extended to cater for secondary pupils, and it is now possible to do a complete secondary course to matriculation standard by correspondence. Each year more than 20,000 students receive all or part of their instruction by correspondence.

Schools of the air. These are intended to give the outback child of school age some of the benefits of school life and to supplement correspondence education. Using the two-way wireless equipment developed first by the Royal Flying Doctor Service, children hundreds of miles apart participate in the same lesson, and teacher and pupils can talk directly with each other. The first School of the Air was established in 1950 at Alice Springs in the Northern Territory; it has been followed by similar schools at Broken Hill in the far west of New South Wales; Ceduna and Port Augusta in South Australia; Charleville, Mount Isa and Charters Towers in Queensland; and Meekatharra, Derby, Kalgoorlie and Port Hedland in Western Australia. These eleven schools serve children in an area of a million square miles.

Handicapped children

Special provision is made for the education of physically and mentally handicapped children, both by the State authorities and by church and voluntary organizations, often working in conjunction. In many cases, where residential schools are necessary for particular groups, educational facilities and teaching staff are provided by a State Education Department, while a voluntary organization provides accommodation and accepts responsibility for the general welfare of the children. Among the facilities available are: hospital schools for sick and crippled children; 'spastic centres' for cerebral palsied children; special schools and special classes for deaf children; schools for blind children; and special schools and classes for mentally retarded children. Special schools and classes have involved the appointment of departmental specialists, the provision of special training courses, and close liaison with school health services. In some States clinics attached to hospitals, or functioning as an independent child welfare service, handle cases of personality maladjustment and work in co-operation with the psychological services of the Education Departments.

Educational guidance

Each Australian State has a comprehensive system of educational guidance administered by trained and experienced educational psychologists and backed by a system of individual pupil record cards. The functions of these services are advice concerning suitability of various secondary studies for particular children, diagnosis and guidance of atypical children, preliminary guidance and, in some States, research. The weight given to each of these functions varies from State to State, but the aim is to provide thorough educational guidance for all children.

Throughout Australia branches of the Commonwealth Employment Service co-operate with State Education Departments by giving post-school vocational guidance, using the data obtained during the school careers of the children and made available by the Education Departments. In New South Wales a similar service is also provided by the Youth Welfare Section of the State Department of Labour and Industry.

Research

All State Education Departments have set up branches undertaking research directed towards departmental activities. The work of the research branches is concerned with such matters as curriculum content, new teaching methods, evaluation procedures, wastage rates, and educational statistics.

School broadcasting and television

Over the years an extensive school broadcasting system has been developed in Australia by the co-operative efforts of the Australian Broadcasting Commission and education authorities. The Australian Broadcasting Commission's Education Department is responsible for preparing and broadcasting programmes, but it draws freely on the advice and services of teachers and maintains permanent liaison with State Education Departments. It is estimated that in 1965 approximately ninety-six per cent of Australian schools were equipped to receive radio broadcasts. In 1965 over 3,500 separate programmes were produced for schools.

School broadcasts are presented as part of the regular Australian Broadcasting Commission programmes without separate stations or wave lengths. Special efforts are made to relate the broadcasts to school work by the extensive distribution of booklets, giving details of programmes in advance, and subject notes accompanied by picture sheets, work books, and teachers' notes. Broadcasting has proved to be a most effective way of reaching the outback children of Australia, and radio lessons have been designed to supplement correspondence lessons.

The year 1965 saw a further increase in the number of schools receiving television broadcasts and in the number of programmes produced. During 1964, after consultation with the six Education Departments, the Australian Broadcasting Commission increased its output of school television programmes, especially instructional programmes in mathematics and science for secondary schools. This was increased further in 1965. At the same time most Education Departments began to subsidize the purchase of television sets, and by the end of 1965, 2,879 schools in Australia were equipped to use educational television programmes. Some 700 separate programmes were produced for telecast to schools in 1965.

Scholarships and bursaries

All States have schemes of financial assistance to school pupils, mostly at the secondary level, through scholarships or bursaries. As tuition in government schools is free, this assistance is usually in the form of maintenance allowances, both for children living with their parents and for those living away from home. These may be paid in a lump sum or in instalments throughout the year. Awards are usually made on the results of a competitive examination, and sometimes a means test is applied. Other government and private authorities, such as the Repatriation Department and the Legacy War Orphans Fund, assist special categories of pupils with their school education. Many non-government schools also award scholarships, on a competitive basis, which enable students to attend the particular schools without payment of fees.

In 1964 the Commonwealth Government, with the co-operation of the State Departments of Education, introduced a programme of secondary scholarships to encourage successful candidates to complete the final two years of secondary schooling. Ten thousand of these scholarships are awarded each year. In addition, there are 2,500 scholarships for technical education each year.

School transport

All States have systems of subsidies whereby transport is made available free or at concession rates for children travelling to and from school. In some States allowances are paid if private transport has to be used.

School buildings

The great increase in the school population in the last decade led to an expansion in school building. To cope with this growth in population, it was necessary at first to make use of temporary and emergency structures, but the period of resorting to this expedient has now given way to one of consolidation and development in school building programmes. Quite large schools may be built in stages to match increase in local population in new and rapidly developing suburbs in metropolitan areas. Authorities are giving much attention to the use of new materials and especially to the planning of sites. An increasing number of schools are planned with playing fields and tennis courts. Gymnasiums which may also serve as assembly halls are included, and lighting, heating and ventilation to meet different climatic conditions are carefully planned.

During the period 1 July 1964 to 30 June 1968 a total of \$39,623,200 will have been provided by the Commonwealth Government for the building and equipping of science laboratories in both government and non-government schools. Non-government schools in the Australian Capital Territory and the Northern Territory do not receive this assistance. In these areas the Commonwealth Government meets interest charges on loans raised for approved building projects and also repays the amounts of capital borrowed in equal annual instalments over periods of twenty years.

Textbooks, materials and other equipment

The State Education Departments supply government schools, free of charge, with essential equipment, including scientific apparatus, maps, blackboards, chalk and cleaning materials, and non-consumable equipment for commercial, home science and manual training. Garden tools and physical training equipment are also supplied in most States. Readers and writing equipment for individual pupils are usually supplied free in primary schools, and several Education Departments produce monthly school magazines which are supplied free or cheaply. In primary schools (except in one State) and in secondary schools, textbooks must, however, be purchased by students. In several States schools own stocks of textbooks which are hired to students, and in one State secondary textbooks are sold at reduced prices. In four States certain textbook costs are subsidized for pupils attending government and non-government schools. Equipment such as

radios, television sets, film and filmstrip projectors, pianos, duplicators, and library books is ordinarily purchased for individual schools by the parent and citizen organizations associated with them, with the assistance of subsidies from the Departments.

The design of school furniture is undergoing considerable change following research on posture and the physical measurement of children. Dual desks are now being replaced in many schools by individual tables and chairs, provided in a range of sizes suitable to each class. In line with modern educational practice, the new type of furniture has been designed to allow more flexible arrangements of the classroom.

Visual aids

Visual aids are widely used in Australian education. Each of the State Education Departments has a visual education branch to handle the production and distribution of such materials. Film strips and posters are distributed free or at low cost. Films are held in central libraries and are requisitioned by schools as required for teaching purposes.

Pre-school education

Pre-school centres of various kinds are conducted by approved private individuals, by church bodies and by voluntary organizations such as the Kindergarten Unions. Over recent years the Commonwealth Government, State Governments, and some municipal councils have provided an increasing amount of financial assistance and they themselves maintain centres.

The Australian Pre-School Association is a federal body composed of the Kindergarten Unions and several other organizations. Its aim is to promote the development of pre-school education throughout Australia. It is also responsible for the administration of six Lady Gowrie Child Centres which were established in capital cities by the Commonwealth Government as model pre-school centres. Pre-school centres are located in city and country areas. Programmes are adapted to suit the areas in which centres are situated. Types of pre-school centres are nursery kindergartens, crèches with full-day care for children in closely settled industrial areas, play groups and play centres, occasional care centres, and residential holiday homes. Pre-school centres can cater only for a small proportion of children in the three to five or six year age group, but radio and television have brought a form of education within the reach of practically every pre-school child in Australia. 'Kindergarten of the Air', the first programme of its kind in the world, is a session of twenty-five minutes broadcast every week-day over the national radio network of the Australian Broadcasting Commission. Through it, young children in hospitals, in homes in city and country towns and in bush homesteads in the outback, perhaps many miles from any school, receive many of the advantages of pre-school training. 'Kindergarten Playtime' is a fifteen minute television programme transmitted each week-day. It is based on the interests of children from three to five years and is now broadcast in all State capital cities and many country regions by the Australian Broadcasting Commission. It is envisaged that this programme will be replaced by a more comprehensive thirty-minute programme 'Kindergarten Play School' in 1966.

Technical education

The following description of technical education refers to training in technical fields given by institutions other than secondary schools and universities. Students may proceed to this kind of training after completing three to five years at secondary school. Each State has developed a system of technical education based on institutions set up in all the State capital cities and in many country areas. These institutions are known variously as technical colleges, technical schools, institutes of technology, and schools of mines. The earliest began as local and even private ventures in the second half of the nineteenth century, but almost all of them have now come under the control of the State Governments.

The technical colleges in Queensland, South Australia, Western Australia, and Tasmania are administered by branches of the State Education Departments and are financed from the budget of the State Minister for Education. Certain recommended technical colleges and institutes are assisted by special Commonwealth Government grants introduced in 1965 following recommendations of a Committee set up to consider the future of tertiary education in Australia. New South Wales has a separate State Department of Technical Education. In Victoria there is a dual system with a number of the older colleges controlled by their own 'councils' in addition to government-controlled colleges administered by the Technical Education Branch of the Education Department. The council-controlled colleges receive government grants-in-aid and their teachers' salaries are paid by the State Government.

Australian technical colleges offer training in all the major industrial skills and in a wide variety of commercial, artistic and domestic occupations. The three main types of courses are described below.

Trade courses

These offer part-time training for apprentices. In developing a system of technical education, the Australian authorities were influenced by the British tradition which regards practical experience on the job as the fundamental training procedure, to be supplemented by theoretical and practical training at an appropriate school. In each of the Australian States there is an apprenticeship authority which supervises the administration of apprenticeships and an education authority which provides technical education through its technical colleges.

The time spent on training varies from three to five years in different trades and States. Between four and eight hours instruction a week are required. Most of this takes place in the employer's time, and it is unusual for more than two hours a week to be spent in attending classes outside working hours.

Certificate courses

There is considerable variation between the States in the aims and organization of certificate courses. In New South Wales they provide training of a semi-professional nature in occupations for which no apprenticeship awards exist. Some of the courses are open to qualified tradesmen only. For others no occupational entry qualifications are demanded, but it is necessary to hold an Intermediate Certificate or its equivalent. The courses are usually for four years, most of them being part-time.

The Victorian certificate course is designed to develop specialized skills in a particular phase of an occupation. In the building field, for instance, there is a certificate course in architectural drafting. The courses are offered at three levels—professional certificate courses which include diploma subject-matter and can be counted towards a diploma; special short courses which are designed to increase the efficiency of people in their chosen field; and technicians' courses which give a standard of training between trade and professional courses. In general, they consist of part-time day and/or evening instruction concurrent with employment in the field, and entrance requirements are of approximately Intermediate Examination standard. Courses in other States are mostly part-time and of two to seven years duration. They provide a wide range of training for skilled technical and semi-professional workers, and in most cases entrance is at the level of the Intermediate Examination or equivalent.

Diploma courses

Diploma courses are designed to provide professional training in fields such as architecture, art, building, commerce, management, public administration, manual arts, the various branches of engineering and metallurgy, and pure and applied science. They usually follow completion of a full secondary school course. The courses consist of complete progressive units of study in which the lecture room, laboratory and workshop are closely associated. They vary from three to five years full-time and from three to seven years part-time study. At least one full year of employment in an appropriate occupation is usually required. The aim of the courses is to develop highly trained technologists with the qualifications and experience required for membership of a professional institution.

Other technical courses

Most colleges provide short post-diploma and refresher courses to keep students in touch with new developments in their fields, as well as courses of general interest, such as handicrafts and motor mechanics. Training in certain technical aspects of agriculture such as farm mechanics and wool classing is often given in the technical colleges. Some also offer general secondary courses to enable adults to prepare for matriculation and other public examinations.

Technical correspondence teaching

Each State has a well developed system of technical education by correspondence to extend the facilities of a metropolitan college to rural students. Entrance qualifications are identical with those for the regular classes. A major problem of correspondence work is the linking of theory with practice. This is overcome to a certain extent by holding practical sessions at appropriate training centres once or twice a year at the technical college where the correspondence school is based, or at a mobile workshop stationed for the time at a focal point within the district. In New South Wales these mobile workshops are rail cars equipped with machinery and fittings to make them self-contained training schools for engineering and other trades. Among practical courses offered by correspondence are trade drawing, fitting and machinery, welding, diesel engine operation, automotive engineering and workshop practice, and farm mechanics.

Technical colleges, teachers and students

The numbers of colleges, teachers and enrolments of individual students during the years 1960 to 1964 are given in the following table.

**TECHNICAL EDUCATION: COLLEGES, TEACHERS AND ENROLMENTS
STATES AND TERRITORIES, 1960 TO 1964**

State or Territory	Colleges	Teachers			Students enrolled		
		Full-time	Part-time	Total	Males	Females	Persons
New South Wales(a)(b)—							
1960	51	1,286	1,682	2,968	62,523	34,195	96,718
1961	51	1,302	2,051	3,353	66,715	35,495	102,210
1962	52	1,348	2,390	3,738	68,889	35,165	104,054
1963	52	1,474	2,399	3,873	73,402	36,145	109,547
1964	53	1,535	3,099	4,634	79,371	36,456	115,827
Victoria—							
1960	57 (c)	2,796	(c) 1,766	(c) 4,562	42,526	11,390	53,916
1961	63 (c)	3,333	(c) 1,929	(c) 5,262	47,053	13,424	60,477
1962	70 (c)	3,438	(c) 1,956	(c) 5,394	48,939	12,487	61,426
1963	73 (c)	4,010	(c) 2,033	(c) 6,043	50,325	13,456	63,781
1964	73 (c)	4,328	(c) 2,067	(c) 6,395	52,031	13,399	65,430
Queensland(a)—							
1960	14	174	647	821	18,155	9,942	28,097
1961	14	174	663	837	18,290	9,156	27,446
1962	15	228	718	946	19,365	10,843	30,208
1963	15	247	820	1,067	21,949	12,074	34,023
1964	14	200	891	1,091	23,134	11,243	34,377
South Australia(a)—							
1960	25	323	737	1,060	15,728	7,722	23,450
1961	25	363	712	1,075	15,596	8,457	24,053
1962	24	387	827	1,214	17,599	10,177	27,776
1963	24	432	916	1,348	18,661	11,291	29,952
1964	25	436	1,063	1,499	19,956	11,503	31,459
Western Australia(a)—							
1960	19 (d)	307	(d) 802	(d) 1,109	17,017	8,739	25,756
1961	20 (d)	317	(d) 862	(d) 1,179	17,992	9,083	27,075
1962	25 (d)	352	(d) 1,136	(d) 1,488	20,362	10,386	30,748
1963	32 (d)	363	(d) 1,257	(d) 1,630	20,126	10,286	30,412
1964	32 (d)	444	(d) 1,387	(d) 1,831	23,528	11,183	34,711
Tasmania—							
1960	8	111	413	524	5,253	2,085	7,338
1961(e)	12	97	383	480	4,871	1,427	6,298
1962	11	95	414	509	4,884	1,763	6,647
1963	10	90	449	539	5,564	2,023	7,587
1964	9	102	488	590	5,520	2,023	7,543
Northern Territory—							
1960	2	3	50	53	620	349	969
1961	2	4	53	57	629	484	1,113
1962	2	4	54	58	700	440	1,140
1963	2	1	66	67	759	644	1,403
1964	2	1	72	73	748	625	1,373
Total—							
1960	176	5,000	6,097	11,097	161,822	74,422	236,244
1961	187	5,590	6,653	12,243	171,146	77,526	248,672
1962	199	5,852	7,495	13,347	180,738	81,261	261,999
1963	208	6,627	7,940	14,567	190,786	85,919	276,705
1964	208	7,046	9,067	16,113	204,288	86,432	290,720

(a) Excludes correspondence students. (b) Includes A.C.T. (c) Includes teachers in both junior and senior technical colleges. (d) Number of teaching positions. (e) In 1961 there was a transfer of classes in the hobby category to the Adult Education Board.

Training of technical instructors

Prior to the 1939-45 War technical colleges were staffed chiefly by trained teachers in the employment of the Education Departments or technicians drawn from industry. Although some of the latter were highly qualified, the great majority had not been trained as teachers.

To preserve links with industry and trade practice, schemes have been developed which continue the recruitment of specialist tradesmen as instructors but provide also for their training in educational method and teaching techniques. In Victoria the Technical Teachers' College provides training for students with appropriate diploma or trade qualifications and suitable industrial experience. In New South Wales technical college lecturers and tradesmen-instructors receive an in-service course of teacher training in general educational theory and teaching method,

while correspondence courses and visiting lecturers assist the newly appointed tradesman-instructor in country colleges. Variations of this scheme are in operation in other States. Many technical teachers, principally of academic, commercial and domestic science subjects, hold trained teacher's certificates from teachers' colleges.

Government expenditure on schools and technical education

The following tables show particulars of the total net expenditure (i.e. gross expenditure less receipts for services rendered) from certain funds on government schools, education departments and technical education. The data have been compiled on the same basis as far as differences in organization and accounting methods between States and Territories will permit. The tables include only expenditure from the consolidated revenue funds and certain trust or special funds. They exclude loan fund expenditure; expenditure on debt charges, pay-roll tax and superannuation payments, in so far as it is possible to identify these items; and some items for which information cannot be obtained from the public accounts of all States.

Government schools' and education departments' expenditure

The figures relate throughout to years ended 30 June. Net expenditure per pupil relates the total net expenditure to the mean of the numbers of pupils enrolled at government schools at two consecutive school censuses. Net expenditure per head of population relates the total net expenditure to the mean population.

GOVERNMENT SCHOOLS AND EDUCATION DEPARTMENTS: NET EXPENDITURE STATES AND TERRITORIES, 1960-61 TO 1964-65

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T. (a)	A.C.T.	Aust.
TOTAL NET EXPENDITURE (\$'000)									
1960-61	93,160	61,524	27,862	23,616	18,542	9,546	677	1,584	236,511
1961-62	101,868	68,344	30,218	27,011	20,204	10,854	856	1,826	261,181
1962-63	108,088	76,262	33,604	29,540	21,684	11,678	932	2,224	284,012
1963-64	119,778	84,756	37,246	33,363	23,894	12,966	1,087	2,498	315,588
1964-65	140,803	91,593	40,011	36,380	26,810	14,413	1,352	3,264	354,626

TOTAL NET EXPENDITURE PER PUPIL (\$)									
1960-61	156.81	142.72	115.12	138.95	151.72	145.00	157.41	172.98	144.33
1961-62	167.88	152.49	122.07	152.99	159.03	160.84	180.59	176.05	154.67
1962-63	174.53	164.63	133.45	161.40	164.75	169.27	176.88	190.69	163.70
1963-64	190.18	177.12	145.81	175.24	176.11	184.86	182.14	192.05	177.40
1964-65	218.83	184.79	153.87	183.16	192.51	202.63	202.33	226.13	193.86

TOTAL NET EXPENDITURE PER HEAD OF POPULATION (\$)									
1960-61	24.04	21.26	18.53	24.67	25.41	27.27	26.37	28.68	22.76
1961-62	25.80	23.10	19.79	27.56	27.09	30.43	32.22	29.25	24.63
1962-63	26.92	25.24	21.66	29.57	28.37	32.25	33.76	32.13	26.27
1963-64	29.31	27.42	23.67	32.71	30.55	35.41	36.16	32.35	28.62
1964-65	33.87	28.90	25.07	34.87	33.62	39.16	41.68	38.60	31.53

(a) Figures exclude expenditure on new buildings and works, which amounted to \$413,000 in 1960-61, \$648,000 in 1961-62, \$661,000 in 1962-63, \$462,000 in 1963-64, and \$709,000 in 1964-65.

The following table shows, for the six States, the net expenditure on government schools and education departments classified into the following headings: Primary Education, Secondary Education, Administration, Transportation of School Children and Students, and Training of Teachers. Expenditure on technical and agricultural education is excluded from the tables. It has been necessary to estimate some items of expenditure, largely because the meanings of 'primary' and 'secondary' differ between States and because elementary and higher educations are sometimes given in the same school by the same teachers. Expenditure on government schools in the Northern Territory and Australian Capital Territory is not included in the following table because the detail is not available.

**GOVERNMENT SCHOOLS AND EDUCATION DEPARTMENTS: CLASSIFICATION
OF EXPENDITURE, STATES, 1959-60 TO 1963-64**
(\$'000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total(a)
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PRIMARY EDUCATION

1960-61	50,152	32,732	18,704	12,018	9,860	3,852	127,318
1961-62	54,050	35,538	19,434	13,242	10,572	4,046	136,882
1962-63	55,880	38,976	20,816	13,992	11,154	4,330	145,148
1963-64	60,824	42,590	21,066	15,586	12,258	4,990	157,312
1964-65	70,199	45,492	20,995	16,640	13,800	5,521	172,647

SECONDARY EDUCATION

1960-61	29,652	15,076	5,582	8,241	4,436	3,018	66,005
1961-62	33,102	18,000	6,906	9,710	5,166	3,670	76,554
1962-63	35,386	20,460	8,094	10,964	5,918	3,958	84,780
1963-64	40,706	23,852	10,458	12,699	6,686	5,034	99,435
1964-65	49,992	26,027	12,778	14,193	7,522	5,678	116,190

ADMINISTRATION

1960-61	3,706	1,620	1,214	498	726	1,062	8,826
1961-62	4,148	1,672	1,276	530	716	1,118	9,460
1962-63	4,138	1,780	1,344	600	750	1,374	9,986
1963-64	4,522	1,906	1,484	698	858	810	10,278
1964-65	5,503	2,232	1,571	813	1,021	833	11,973

TRANSPORTATION OF SCHOOL CHILDREN AND STUDENTS

1960-61	4,116	4,786	1,370	1,046	1,996	1,138	14,452
1961-62	4,564	5,048	1,556	1,134	2,108	1,230	15,640
1962-63	5,300	5,352	1,806	1,172	2,170	1,284	17,084
1963-64	5,582	5,600	2,076	1,270	2,362	1,336	18,226
1964-65	5,867	6,009	2,474	1,312	2,611	1,418	19,691

TRAINING OF TEACHERS

1960-61	5,534	7,310	992	1,813	1,524	476	17,649
1961-62	6,004	8,086	1,046	2,395	1,642	790	19,963
1962-63	7,384	9,694	1,544	2,812	1,692	732	23,858
1963-64	8,144	10,808	2,162	3,110	1,730	796	26,752
1964-65	9,242	11,833	2,193	3,422	1,856	963	29,509

(a) Excludes Northern Territory and Australian Capital Territory.

Technical education expenditure

The following table shows the net expenditure on technical education from the State consolidated revenue funds, together with expenditure in the Australian Capital Territory.

TECHNICAL EDUCATION: NET EXPENDITURE, STATES AND AUSTRALIAN CAPITAL TERRITORY, 1960-61 TO 1963-64

(\$'000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	A.C.T.	Aust.
1960-61 . .	8,228	12,100	2,468	701	1,836	690	138	26,161
1961-62 . .	9,264	13,280	1,966	840	2,176	492	146	28,164
1962-63 . .	9,530	15,712	2,144	960	2,336	688	162	31,532
1963-64 . .	10,684	18,048	2,044	1,330	2,772	732	211	35,821
1964-65 . .	12,637	19,963	1,892	1,386	3,426	813	305	40,422

Non-government schools' finance

Most Roman Catholic parochial schools charge fees, but payment is not insisted on in the case of families who cannot afford it. At the majority of non-government secondary schools privately endowed scholarships are available in varying numbers, and reductions in fees are normally made for children of clergy or for two or more members of one family attending the same school. With these exceptions, pupils of non-government schools must pay fees.

Certain State scholarships and bursaries are tenable at approved non-government secondary schools. Since the establishment of educational systems by the State Governments, official policy has been largely against the provision of direct financial assistance to non-government schools. Most States, however, have come to assist non-government schools in approved building projects. This assistance takes the form of payment of interest charges on loans raised for the extension of teaching space. The eight undenominational grammar schools in Queensland receive a State subsidy under '*The Grammar Schools Acts 1860 to 1900*'. In 1956 the Commonwealth Government undertook to contribute to the interest payments on loans raised in order to build non-government secondary school accommodation in the Australian Capital Territory. This contribution is now available for both primary and secondary school buildings, extensions and additions. As from 1964-65 the Commonwealth Government has provided assistance to non-government schools for the building and equipping of science laboratories. (See page 596.)

Universities

Students qualify for entrance to Australian universities by passing a matriculation examination in one of the States after five or six years of secondary education. Each university has its own regulations for matriculation, specifying the number and combination of subjects to be passed for admission. Students entering the universities have the choice of undergraduate study in various faculties. All universities provide also postgraduate courses of study. The Australian universities, with their faculties, are listed below in the order of their foundation.

University of Sydney, 1850. Sydney, New South Wales: Agriculture, Architecture, Arts, Dentistry, Economics, Engineering, Law, Medicine, Science, Veterinary Science.

University of Melbourne, 1853. Melbourne, Victoria: Agriculture, Applied Science, Architecture, Arts, Dental Science, Economics and Commerce, Education, Engineering, Law, Medicine, Music, Science, Veterinary Science.

University of Adelaide, 1874. Adelaide, South Australia: Agricultural Science, Architecture and Town Planning, Arts, Dentistry, Economics, Engineering, Law, Medicine, Music, Science, Technology and Applied Science.

University of Tasmania, 1890. Hobart, Tasmania: Agricultural Science, Arts, Commerce, Education, Engineering, Law, Medicine, Science.

University of Queensland, 1909. Brisbane, Queensland: Agriculture, Architecture, Arts, Commerce and Economics, Dentistry, Education, Engineering, Law, Medicine, Science, Veterinary Science.

University of Western Australia, 1912. Perth, Western Australia: Agriculture, Arts, Dental Science, Economics and Commerce, Education, Engineering, Law, Medicine, Science.

Australian National University, 1946, Canberra, Australian Capital Territory: Institute of Advanced Studies—John Curtin School of Medical Research, Research School of Physical Sciences, Research School of Social Sciences, Research School of Pacific Studies; School of General Studies (formerly Canberra University College, established in 1930)—Arts, Economics, Law, Oriental Studies, Science.

University of New England, 1954 (formerly New England University College, established in 1938), Armidale, New South Wales: Agricultural Economics, Arts, Economics, Rural Science, Science.

University of New South Wales, 1958 (formerly the New South Wales University of Technology, established in 1948), Sydney, New South Wales: Applied Science, Architecture, Arts, Commerce, Engineering, Medicine, Science.

Monash University, 1958, Melbourne, Victoria: Arts, Economics and Politics, Engineering, Law, Medicine, Science.

University of Newcastle, 1965 (formerly Newcastle University College, established in 1951), Newcastle, New South Wales: Applied Science, Architecture, Arts, Commerce, Engineering, Science.

Flinders University of South Australia, 1966 (formerly the University of Adelaide at Bedford Park), Bedford Park, South Australia: Arts, Science.

Each of the universities was established by a parliamentary Act as an autonomous institution, with its own Governing Council or Senate. Nevertheless, the Australian universities receive substantial government support from both State and Commonwealth sources, only part of their income being derived from students' fees, private donations and bequests.

There are also two university colleges. Townsville University College, founded in 1961, is a part of the University of Queensland. It offers some courses in the faculties of Agriculture, Arts, Commerce and Economics, Dentistry, Education, Engineering, Law, Medicine, Science and Veterinary Science. Wollongong University College was opened in 1962 and is affiliated with the University of New South Wales. It offers some courses in the faculties of Arts, Commerce, Engineering, and Science.

Organization of courses

Bachelor degree courses are from three to six years in length, depending on the faculty, and for the majority full-time attendance is required. Certain courses, however, may also be undertaken by part-time or evening students. The university academic year begins in March and finishes in early December. At most universities two short vacation periods divide the year into three terms, but there are four terms in some universities.

Several universities make provision for external tuition, whereby students living away from university towns may take a restricted number of courses by correspondence. The University of Queensland has developed a system of correspondence tuition which now caters not only for students within the State but for those in the Northern Territory, Papua and New Guinea, adjacent Pacific islands and Asian countries. External students living in Queensland receive tutorial assistance at university centres in the principal country towns.

The University of New England's Department of External Studies offers a wide range of subjects for external study, leading to the degrees of Bachelor of Arts, Bachelor of Letters, Bachelor of Education, the Diploma of Education, and the Diploma in Educational Administration. External students must attend short annual residential schools of instruction in their subjects, usually held at the university.

Post-graduate courses leading either to a Master's degree or to a Doctorate are available at all universities. Facilities cover the humanities, social sciences and pure and applied sciences. Additional courses are constantly being introduced by the universities at both the undergraduate and the post-graduate level to cover new fields of knowledge and specialization. Among announcements of new courses made in 1965 were: at the University of New South Wales, Diploma in Hospital Administration, Bachelor of Social Work, and postgraduate Diplomas in Biochemical Engineering and Civic Design; at the University of Adelaide, Diploma of Computing Science; and at the University of Tasmania, a Faculty of Medicine was established.

Research

A wide range of research work and training in research techniques is carried out by the universities as part of their normal functions. Post-graduate students and members of university staff are engaged in research, both as part of their work for post-graduate degrees and also as part of group and departmental research programmes. Support for research in universities is derived from public and private sources, including funds and foundations established to encourage research in a particular field.

University expansion and development

Since the 1939-45 War the Australian universities have had to face greatly increased demands on their facilities, firstly from large numbers of ex-service personnel in the immediate post-war years and later from greatly increased numbers of students leaving secondary schools each year. By 1965 the total enrolments in Australian universities had reached a figure of 83,320, compared with an early post-war peak of 32,453 in 1948.

To assist the universities to cope with these demands, increasing co-operation between the Commonwealth Government and the State Governments in university finance became necessary. The Commonwealth Government set up a Committee on Australian Universities, whose 1957 report ('The Murray Report') led to more finance becoming available to universities and to the setting up of a permanent body, the Australian Universities Commission, to advise the Commonwealth Government on university development. In the years since the Murray Report the following major developments have taken place in the Australian university structure: the University of New South Wales was created from the earlier University of Technology in 1958; in the same year Monash University was established in Victoria; in 1960 the Australian National University was reconstituted, combining both undergraduate and post-graduate facilities, and now consists of the Institute of Advanced Studies and the School of General Studies created from the Canberra University College; the University of Queensland set up the University College of Townsville in 1961; the University of New South Wales established the Wollongong University College in 1962; in 1965 the University of Newcastle was created from the Newcastle University College; and in 1966 the University of Adelaide at Bedford Park became The Flinders University of South Australia.

The New South Wales Government is proceeding with plans for the construction of a fifth university, to be called Macquarie University, on a site at North Ryde. It is intended that the new university should be opened not later than 1967. In 1964 the Victorian Government announced plans for the extension of facilities for tertiary education. These plans include the development of a third university in the metropolitan area, to be named La Trobe University, and the extension of the Ballarat School of Mines to teach the humanities and to provide degree courses. The Queensland Government is proceeding with plans for the construction of a third university Institution at Mount Gravatt. It is expected that the campus will be established within the next four years as a satellite of the University of Queensland.

Despite their expansion, the Australian universities are still faced with a problem in providing tuition for all students who reach matriculation standard. As a result, several universities have found it necessary to impose quotas on enrolments in their courses.

During 1961 the Commonwealth Government set up a committee to consider the pattern of tertiary education in relation to the needs and resources of Australia and to make recommendations to the Australian Universities Commission on the future development of tertiary education. The first two volumes of the Committee's Report were made public early in 1965, and the third volume in October 1965.

University teaching and research staff

The following tables show particulars of the teaching and research staff of the universities during 1965 and earlier years.

UNIVERSITIES: TEACHING AND RESEARCH STAFF(a), 1965

University	Full-time teaching and research staff					Part-time teaching and research staff(c)	Full-time research only staff	Part-time research only staff(d)
	Professors	Associate professors and readers	Senior lecturers and lecturers	Assistant lecturers, demonstrators, etc.(b)	Total			
Australian National	27	26	128	44	225	141	583	..
Sydney . . .	84	77	484	214	859	1,310	298	11
New South Wales . .	66	64	470	133	733	857	102	3
New England . . .	25	21	143	74	263	28	44	..
Newcastle . . .	12	9	90	9	120	85	6	..
Melbourne . . .	73	85	502	154	814	994	205	20
Monash . . .	46	8	238	113	405	287	29	..
Queensland . . .	54	60	396	217	727	486	102	8
Adelaide . . .	59	50	301	69	479	397	208	7
Flinders . . .	11	..	1	..	12	..	2	..
Western Australia . .	44	37	209	31	321	379	137	4
Tasmania . . .	20	12	88	27	147	203	36	3
Total . . .	521	449	3,050	1,085	5,105	5,167	1,752	56

(a) Filled positions. Teaching and research staff includes all staff with teaching functions, but excludes research only staff which is shown separately. (b) Includes tutors and teaching fellows. (c) Teaching hours in units of 100 hours per annum. (d) In equivalent full-time units of 35 hours per week.

UNIVERSITIES: TEACHING AND RESEARCH STAFF(a), AUSTRALIA, 1961 TO 1965

Year	Full-time teaching and research staff					Part-time teaching and research staff(c)	Full-time research only staff	Part-time research only staff(d)
	Professors	Associate professors and readers	Senior lecturers and lecturers	Assistant lecturers, demonstrators, etc.(b)	Total			
1961 . . .	337	289	2,142	628	3,396	3,199	1,163	30
1962 . . .	363	330	2,438	770	3,901	3,472	1,369	27
1963 . . .	404	374	2,663	848	4,289	3,847	1,481	35
1964 . . .	463	409	2,847	1,004	4,723	4,358	1,675	45
1965 . . .	521	449	3,050	1,085	5,105	5,167	1,752	56

(a) Filled positions. Teaching and research staff includes all staff with teaching functions, but excludes Research only staff which is shown separately. (b) Includes tutors and teaching fellows. (c) Teaching hours in units of 100 hours per annum. (d) In equivalent full-time units of 35 hours per week.

University students enrolled

The numbers of students enrolled for courses at the universities for 1965 and earlier years are shown in the following tables.

UNIVERSITIES: STUDENTS ENROLLED, 1965

University	Degree courses	Diploma courses		Certificate courses	Miscellaneous subjects (a)	Adjusted total(b)
		Post-graduate	Sub-graduate			
Australian National	2,852	..	..	..	126	2,901
Sydney . . .	15,077	717	234	34	244	16,237
New South Wales . . .	10,110	251	230	..	685	11,248
New England . . .	3,612	320	..	1	63	3,964
Newcastle . . .	1,611	47	14	..	54	1,722
Melbourne . . .	12,453	99	652	..	803	13,705
Monash . . .	4,059	146	..	..	14	4,199
Queensland . . .	12,255	83	612	198	433	13,581
Adelaide . . .	7,058	242	1,576	23	263	8,658
Western Australia . . .	4,796	151	..	..	97	5,022
Tasmania . . .	1,826	90	64	67	253	2,083
Total . . .	75,709	2,146	3,382	323	3,035	83,320

(a) Includes *ad hoc* courses. (b) Adjustment made for students enrolled for more than one course.

Of the students enrolled in 1965, 61,285 were males and 22,035 females. Included in those enrolled for degrees were 6,169 enrolled for higher degree courses: Australian National University, 512; Sydney, 1,652; University of New South Wales, 843; New England, 182; Newcastle, 60; Melbourne, 794; Monash, 210; Queensland, 710; Adelaide, 606; Western Australia, 480; and Tasmania, 120.

UNIVERSITIES: STUDENTS ENROLLED, AUSTRALIA, 1961 TO 1965

Year	Degree courses		Diploma courses		Certificate courses	Miscellaneous subjects (a)	Adjusted total(b)
	Higher degrees	Bachelor degrees	Post-graduate	Sub-graduate			
1961 . . .	3,170	46,338	1,328	3,379	1,760	2,461	57,672
1962 . . .	3,814	50,757	1,622	3,307	1,779	2,849	63,317
1963 . . .	4,551	56,077	1,764	3,349	1,424	2,504	69,074
1964 . . .	5,383	62,936	1,984	3,476	628	2,777	76,188
1965 . . .	6,169	69,540	2,146	3,382	323	3,035	83,320

(a) Includes *ad hoc* courses. (b) Adjustment made for students enrolled for more than one course.

University new students enrolled

The numbers of new students enrolled for courses at the universities during 1965 and earlier years are shown in the following tables.

UNIVERSITIES: NEW STUDENTS ENROLLED, 1965

University	Degree courses	Diploma courses		Certificate courses	Miscellaneous subjects (a)	Adjusted total(b)
		Post-graduate	Sub-graduate			
Australian National	1,175	..	..	..	103	1,248
Sydney	3,228	151	111	34	66	3,590
New South Wales	3,302	107	74	..	484	3,967
New England	1,244	110	..	1	21	1,371
Newcastle	561	3	..	..	15	579
Melbourne	2,582	15	230	..	260	3,008
Monash	1,892	46	..	..	13	1,935
Queensland	3,147	9	226	24	180	3,586
Adelaide	1,821	8	362	3	28	2,215
Western Australia	1,245	3	..	..	19	1,267
Tasmania	562	6	6	15	126	670
Total	20,759	458	1,009	77	1,315	23,436

(a) Includes *ad hoc* courses.

(b) Adjustment made for students enrolled for more than one course.

Of the new students enrolled in 1965, 16,263 were males and 7,173 females. Included in those enrolled for degrees were 697 enrolled for higher degree courses: Australian National University, 164; Sydney, 107; University of New South Wales, 140; New England, 16; Newcastle, 10; Melbourne, 55; Monash, 66; Queensland, 34; Adelaide, 50; Western Australia, 19; and Tasmania, 36.

UNIVERSITIES: NEW STUDENTS ENROLLED, AUSTRALIA, 1961 TO 1965

Year	Degree courses		Diploma courses		Certificate courses	Miscellaneous subjects (a)	Adjusted total(b)
	Higher degrees	Bachelor degrees	Post-graduate	Sub-graduate			
1961	349	13,254	231	884	605	1,040	16,263
1962	475	14,487	279	926	455	1,149	17,626
1963	538	15,717	387	944	236	960	18,746
1964	603	18,339	462	971	158	1,118	21,528
1965	697	20,062	458	1,009	77	1,315	23,436

(a) Includes *ad hoc* courses.

(b) Adjustment made for students enrolled for more than one course.

Full-time, part-time and external university students

The following tables classify students at universities in 1965 and earlier years according to whether they were studying full-time, part-time or externally.

UNIVERSITIES: FULL-TIME, PART-TIME AND EXTERNAL STUDENTS, 1965

University	Full-time	Part-time	External	Total
Australian National	1,608	1,293	..	2,901
Sydney	12,437	3,800	..	16,237
New South Wales	5,373	5,742	133	11,248
New England	1,250	146	2,568	3,964
Newcastle	744	976	2	1,722
Melbourne	9,096	4,020	589	13,705
Monash	3,606	593	..	4,199
Queensland	6,238	4,773	2,570	13,581
Adelaide	5,314	2,875	469	8,658
Western Australia	2,971	1,681	370	5,022
Tasmania	1,279	593	211	2,083
Total	49,916	26,492	6,912	83,320

**UNIVERSITIES: FULL-TIME, PART-TIME AND EXTERNAL
STUDENTS, AUSTRALIA, 1961 TO 1965**

Year	Full-time	Part-time	External	Total
1961 . . .	30,834	21,048	5,790	57,672
1962 . . .	34,723	22,430	6,164	63,317
1963 . . .	38,931	23,752	6,391	69,074
1964 . . .	44,327	25,316	6,545	76,188
1965 . . .	49,916	26,492	6,912	83,320

Assistance to university students

The Commonwealth Government, through the Commonwealth Scholarships Board, grants undergraduate and post-graduate scholarships to university students. (Details of the Commonwealth Scholarship Scheme are given on page 618.) Commonwealth, State and local governments also award cadetships and other assistance to their employees. Foreign students are assisted by the Commonwealth Government under arrangements such as the Colombo Plan. The Universities themselves grant exhibitions and scholarships as well as special assistance to teachers, etc.

The following tables give details of students assisted at universities in 1965 and earlier years.

UNIVERSITIES: ASSISTED STUDENTS, 1965

University	Source of assistance					Type of course	
	Commonwealth Government	State Governments	Universities	Other	Adjusted total (a)	Higher degrees	Other
Australian National	661	1	897	33	1,438	403	1,035
Sydney . . .	5,533	2,995	3,805	141	9,082	486	8,596
New South Wales .	1,853	795	1,431	728	4,147	429	3,718
New England . . .	377	580	1,628	50	2,618	148	2,470
Newcastle . . .	281	345	601	144	1,022	42	980
Melbourne . . .	4,655	2,706	3,870	170	9,057	546	8,511
Monash . . .	996	1,214	267	24	2,501	192	2,309
Queensland . . .	3,054	898	547	290	4,789	386	4,403
Adelaide . . .	2,041	2,143	1,612	158	5,432	393	5,039
Western Australia .	1,276	781	120	105	2,220	152	2,068
Tasmania . . .	506	530	97	61	1,100	41	1,059
Total . . .	21,233	12,988	14,875	1,904	43,406	3,218	40,188

(a) Adjustment made for students assisted from more than one source.

UNIVERSITIES: ASSISTED STUDENTS, AUSTRALIA, 1961 TO 1965

Form of assistance	1961	1962	1963	1964	1965
Government assistance . . .	20,937	23,020	26,670	31,035	34,221
University assistance . . .	9,025	10,710	12,063	13,765	14,875
Other assistance . . .	2,726	1,553	1,620	1,771	1,904
Adjusted total(a) . . .	28,953	31,041	33,678	39,416	43,406

(a) Adjustment made for students assisted from more than one source.

Resident university students

In 1965, 6,658 full-time and 267 part-time students were in residence at affiliated colleges, halls of residence and university hostels. The 6,925 students in residence were distributed as follows: Australian National University, 658; Sydney, 818; New South Wales, 285; New England, 1,063; Melbourne, 1,475; Monash, 205; Queensland, 1,181; Adelaide, 381; Western Australia, 578; and Tasmania, 281. There were 5,131 male students and 1,794 female students in residence.

University degrees conferred, etc.

The following table shows the numbers of degrees conferred and diplomas and certificates granted for males and females separately at each university during the year ended 31 July 1965.

UNIVERSITIES: DEGREES CONFERRED, AND DIPLOMAS AND CERTIFICATES GRANTED, YEAR ENDED 31 JULY 1965

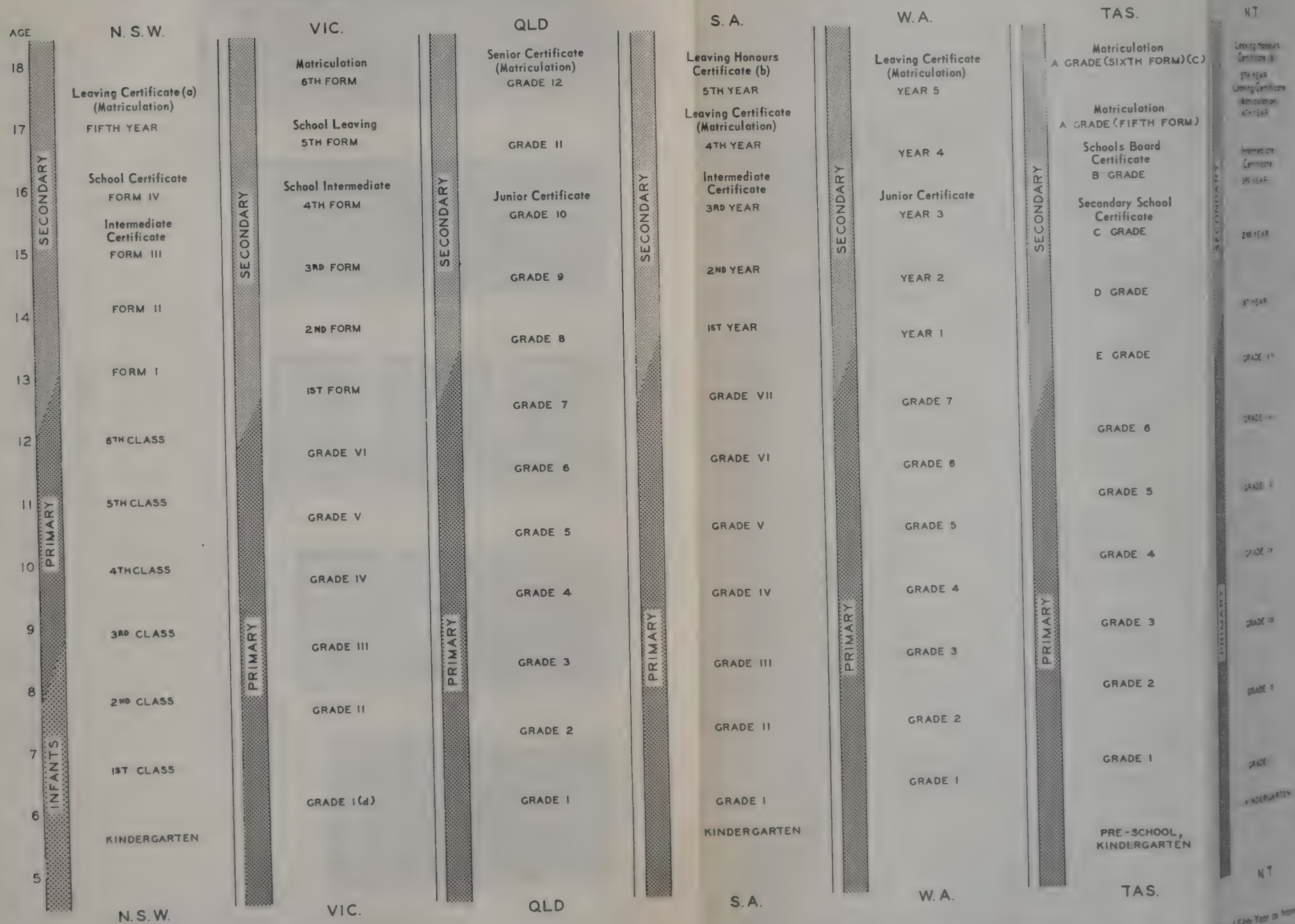
Course	Aus- tralian National		Sydney		New South Wales		New England		New- castle		Mel- bourne	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Degrees—												
Arts	52	30	308	420	70	68	164	63	42	34	229	237
Divinity . . . . .	..	..	2	..	..	..	..	..	..	..	..	..
Music . . . . .	..	..	..	1	..	..	..	..	..	..	5	18
Psychology . . . . .	..	1	..	..	6	1	..	..	..	..	..	..
Law	10	1	129	7	..	..	..	..	..	..	150	21
Commerce/Economics	35	3	117	9	131	4	..	..	17	..	199	21
Education . . . . .	..	..	18	9	..	..	..	..	..	..	51	13
Social studies	10	..	..	..	..	..	..	..	..	..	..	..
Science	27	6	294	115	354	42	79	18	20	9	232	83
Applied science . . . . .	..	..	..	..	..	..	..	..	24	..	8	3
Architecture and town plan- ning . . . . .	..	..	28	5	41	1	..	..	3	..	61	8
Building . . . . .	..	..	2	..	13	..	..	..	..	..	..	..
Engineering . . . . .	..	..	175	2	298	..	..	..	40	..	145	..
Surveying . . . . .	..	..	..	..	16	..	..	..	..	..	3	..
Dentistry . . . . .	..	..	43	2	..	..	..	..	..	..	25	2
Medicine	10	..	249	43	4	1	..	..	..	..	133	24
Optometry . . . . .	..	..	..	..	6	..	..	..	..	..	..	..
Pharmacy . . . . .	..	..	92	54	..	..	..	..	..	..	..	..
Physiotherapy . . . . .	..	..	..	..	..	..	..	..	..	..	..	..
Agriculture . . . . .	..	..	48	16	..	..	28	3	..	..	36	1
Agricultural economics . . . . .	..	..	..	..	..	..	20	3	..	..	..	..
Forestry	1	..	10	..	..	..	3	..	..	..	5	..
Veterinary science . . . . .	..	..	52	3	..	..	..	..	..	..	1	..
<i>Total degrees</i>	145	41	1,567	686	939	117	294	87	146	43	1,283	431
Post-graduate diplomas—												
Education . . . . .	..	..	112	180	17	29	56	55	17	29	50	45
Engineering . . . . .	..	..	39	6	23	..	..	..	..	..	11	..
Medicine . . . . .	..	..	62	7	..	..	..	..	..	..	14	2
Agriculture . . . . .	..	..	4	1	..	..	..	..	..	..	..	..
Other . . . . .	..	..	(a) 1	..	(b) 7	b 28	..	..	..	..	..	(c) 1
<i>Total post-graduate diplomas</i> . . . . .	..	..	218	194	47	57	56	55	17	29	75	48
Sub-graduate diplomas	1	..	3	27	6	2	..	..	..	..	34	59
Certificates . . . . .	..	..	..	..	43	1	..	..	..	..	..	..

(a) Anthropology. (b) Librarianship. (c) Criminology.

Table continued on next page.

GRADES AND EXAMINATIONS IN THE PRIMARY AND SECONDARY SCHOOL SYSTEMS IN EACH STATE AND TERRITORY, 1965

The grade terminology follows, as nearly as possible, that used in government primary and high schools in each State in 1965. It is not necessarily used in all types of schools. The grade has been written in approximately to agree with the age-scale shown on the diagram, in order to indicate differences in age-grade patterns between States. The diagram should not be taken as a comparison of academic standards of grades between States. For a more detailed presentation of the systems operating in each State, reference should be made to diagrams etc. appearing in the annual reports of State Ministers of Education.

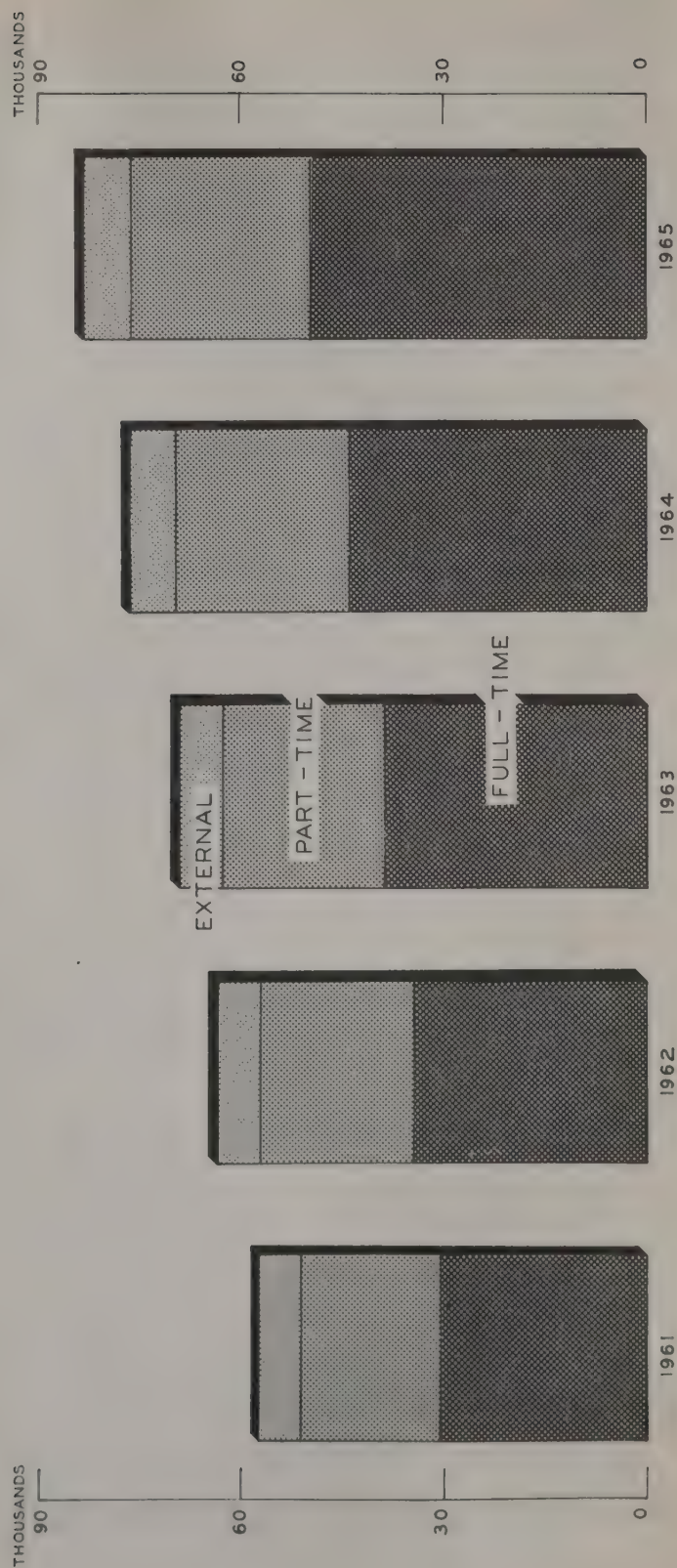


(a) In N.S.W. and A.C.T. an additional secondary grade (Form VI) will operate as from 1967. (b) In S.A. and N.T. Matriculation may be gained only at end of Fifth Year as from 1967. (c) In Tasmania many A GRADE pupils study for Matriculation over a two year period. (d) In Victoria, owing to differences of commencing school, younger pupils spend two years in Grade 1.



UNIVERSITIES: STUDENTS ENROLLED, AUSTRALIA

1961 TO 1965



[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

UNIVERSITIES: DEGREES CONFERRED, AND DIPLOMAS AND CERTIFICATES GRANTED, YEAR ENDED 31 JULY 1965—*continued*

Course	Monash		Queens- land		Adelaide		Western Australia		Tas- mania		All Universities	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Degrees—												
Arts	57	60	93	151	69	71	132	88	57	61	1,273	1,283
Divinity . . . . .	..	..	..	..	..	..	..	..	..	..	2	..
Music . . . . .	..	..	..	..	6	7	1	..	..	..	12	26
Psychology . . . . .	..	..	..	..	..	..	7	2	..	..	13	4
Law . . . . .	..	..	20	..	23	11	24	1	11	..	367	41
Commerce/Economics	30	1	105	13	34	1	36	3	15	1	719	56
Education . . . . .	..	..	29	10	..	..	15	4	..	..	113	36
Social studies . . . . .	..	..	4	6	..	..	..	..	..	..	14	6
Science	18	7	151	56	247	48	129	31	55	9	1,606	424
Applied science . . . . .	..	..	11	..	9	..	..	..	..	..	52	3
Architecture and town plan- ning . . . . .	..	..	17	..	9	1	..	..	..	..	159	15
Building . . . . .	..	..	..	..	..	..	..	..	..	..	15	..
Engineering	4	..	129	1	159	..	40	..	21	..	1,011	3
Surveying . . . . .	..	..	6	..	..	..	..	..	..	..	25	..
Dentistry . . . . .	..	..	41	1	21	..	9	1	..	..	139	6
Medicine	3	..	81	16	87	9	38	6	..	..	605	99
Optometry . . . . .	..	..	..	..	..	..	..	..	..	..	6	..
Pharmacy . . . . .	..	..	27	17	..	..	..	..	..	..	119	71
Physiotherapy . . . . .	..	..	..	1	..	..	..	..	..	..	..	1
Agriculture . . . . .	..	..	34	4	30	4	23	..	..	..	199	28
Agricultural economics . . . . .	..	..	..	..	..	..	..	..	..	..	20	3
Forestry . . . . .	..	..	11	..	..	..	5	..	2	..	37	..
Veterinary science . . . . .	..	..	63	1	..	..	..	..	..	..	116	4
<i>Total degrees</i>	<i>112</i>	<i>68</i>	<i>822</i>	<i>277</i>	<i>694</i>	<i>152</i>	<i>459</i>	<i>136</i>	<i>161</i>	<i>71</i>	<i>6,622</i>	<i>2,109</i>
Post-graduate diplomas—												
Education	12	18	24	21	77	43	43	22	18	16	426	458
Engineering . . . . .	..	..	4	..	..	..	..	..	..	..	77	6
Medicine . . . . .	..	..	1	1	..	..	2	1	..	..	79	11
Agriculture . . . . .	..	..	5	..	..	..	..	..	..	..	9	1
Other . . . . .	..	..	..	..	..	..	..	..	..	..	8	29
<i>Total postgraduate diplomas</i>	<i>12</i>	<i>18</i>	<i>34</i>	<i>22</i>	<i>77</i>	<i>43</i>	<i>45</i>	<i>23</i>	<i>18</i>	<i>16</i>	<i>599</i>	<i>505</i>
Sub-graduate diplomas . . . . .	..	..	38	61	127	132	..	..	8	..	217	281
Certificates . . . . .	..	..	210	49	10	..	..	..	16	15	279	65

Table continued from previous page.

The next table shows total degrees conferred at all Australian universities during each of the years 1961 to 1965.

UNIVERSITIES: DEGREES CONFERRED, AUSTRALIA, 1961 TO 1965(a)

Degree	1961			1962			1963			1964			1965		
	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.
Arts	742	647	1,389	890	733	1,623	936	946	1,882	1,102	1,107	2,209	1,273	1,283	2,556
Divinity	1	..	1	3	..	3	1	..	1	3	..	3	2	..	2
Music	9	15	24	9	17	26	8	25	33	13	19	32	12	26	38
Psychology	..	..	..	8	1	9	12	1	13	4	1	5	13	4	17
Law	244	29	273	310	30	340	260	39	299	297	43	340	367	41	408
Commerce/Economics	389	42	431	552	49	601	545	59	604	692	59	751	719	56	775
Education	94	20	114	97	19	116	103	20	123	114	29	143	113	36	149
Social studies	..	4	4	..	5	5	6	8	14	4	9	13	14	6	20
Science	983	247	1,230	1,033	276	1,309	1,222	320	1,542	1,346	357	1,703	1,606	424	2,030
Applied science	14	..	14	12	..	12	31	..	31	36	..	36	52	3	55
Architecture and town planning	60	9	69	79	5	84	133	8	141	128	13	141	159	15	174
Building	..	..	..	2	..	2	6	..	6	6	..	6	15	..	15
Engineering	703	..	703	785	..	785	829	1	830	912	..	912	1,011	3	1,014
Surveying	5	..	5	11	..	11	15	..	15	14	..	14	25	..	25
Dentistry	117	17	134	139	16	155	141	3	144	143	17	160	139	6	143
Medicine	453	71	524	466	84	550	538	74	612	572	83	655	605	99	704
Optometry	..	..	..	..	..	..	..	..	..	76	..	76	6	..	6
Pharmacy	..	..	..	..	..	..	53	39	92	76	52	128	119	71	190
Physiotherapy	..	1	1	..	1	1	1	3	4	..	1	1	..	1	1
Agriculture and agricultural economics	178	16	194	168	12	180	191	17	208	189	16	205	219	31	250
Forestry	32	..	32	16	..	16	27	..	27	30	..	30	37	..	37
Veterinary science	58	4	62	65	4	69	79	4	83	90	7	97	116	4	120
Total—															
Higher doctorates	26	2	28	35	1	36	32	1	33	32	2	34	36	1	37
Ph.D.'s	112	14	126	124	14	138	161	13	174	188	15	203	253	25	278
Master's degrees	279	28	307	301	31	332	319	47	366	342	45	387	398	81	479
Bachelor's degrees	3,665	1,078	4,743	4,185	1,206	5,391	4,625	1,506	6,131	5,209	1,751	6,960	5,935	2,002	7,937
Grand total	4,082	1,122	5,204	4,645	1,252	5,897	5,137	1,567	6,704	5,771	1,813	7,584	6,622	2,109	8,731

(a) Figures for 1962 and later years refer to degrees conferred during the 12 months ended July. Figures for 1961 refer to degrees conferred during the calendar year. Details of degrees conferred during the five months ended December, 1961, which are included in both 1961 and 1962 figures shown in the table, are as follows: Arts, 129; Music, 10; Law, 59; Commerce and Economics, 45; Education, 18; Science, 97; Architecture and town planning, 9; Engineering, 56; Dentistry, 8; Medicine, 207; Physiotherapy, 1; Agriculture and agricultural economics, 15; Forestry, 3; Veterinary science, 25; total degrees, 682, including 10 Higher doctorates, 34 Ph.D.'s, 86 Master's degrees, and 552 Bachelor's degrees.

University finance

Australian universities are incorporated by statute. Since their establishment they have come to depend greatly on government grants for their income. In recent years large amounts have been required for new buildings, as well as for current expenditure to provide staff and equipment to cope with increased student enrolments. In 1964 income from other than State and Commonwealth grants, including student fees, amounted to little more than one-fifth of the total income. Income from non-government sources includes grants, mainly for research purposes, from businesses, international foundations, and private individuals. Some income is also received from endowments.

Financial assistance to universities from the Commonwealth Government

Prior to 1939 Commonwealth assistance was almost entirely concerned with research projects carried out by or in collaboration with the universities. During and since the 1939–45 War the Commonwealth extended assistance to university students, at first to increase the number of highly trained people required for the war effort, then with the object of rehabilitating ex-servicemen, and finally as a social service benefit to the community. For the purpose of reconstruction training, the Commonwealth Government made available to the universities approximately \$2 million for buildings and \$1 million for equipment.

Following a report submitted by a committee of inquiry appointed to report on university finances and requirements, the Commonwealth, since 1951, has made matched grants to the States for recurrent expenditure on university purposes. Since 1958 the Commonwealth has also assisted with the capital needs of the universities for building projects and for equipment, and provided unmatched recurrent grants and grants for the building programmes of residential colleges affiliated with universities. In the 1961–63 triennium the Commonwealth matched State grants for buildings at teaching hospitals and in 1960 instituted grants for research at universities. As well as making grants available for State universities, the Commonwealth has continued to support the university institutions for which it is responsible.

In 1959, following the Report of the Committee on Australian Universities, the Commonwealth Government established the Australian Universities Commission under the *Australian Universities Commission Act 1959*. The Commission's principal functions are to advise the Prime

Minister on financial assistance to Commonwealth universities and to States in relation to their universities and also on the balanced development of Australian universities. The Commission commenced its work in July 1959. Since its establishment the Commission has produced two reports; the first, presented in October 1960, and covering the years 1961 to 1963, recommended Commonwealth grants totalling \$86 million for State universities. The Commission later recommended a separate grant of \$4 million for teaching hospitals. The Commission's second report was presented in August 1963, and recommended Commonwealth grants totalling more than \$121 million for State universities, subsequently increased by \$3 million for teaching hospitals, for the period 1964 to 1966. The *Universities (Financial Assistance) Act 1963* gave effect to the major financial recommendations contained in the Commission's second report and was later amended by the *Universities (Financial Assistance) Act 1965*.

Commonwealth grant for recurrent expenditure in universities. This is a continuation of matched grants provided since 1951. The maximum amounts available in 1964, 1965 and 1966 are shown in the following table. These amounts have been adjusted to allow for the recommendations of the Report of the Inquiry into Academic Salaries by Mr. Justice Eggleston. However, the amounts are subject to further amendment when the full cost is known.

**STATE UNIVERSITIES, ETC.: COMMONWEALTH GRANT
FOR RECURRENT EXPENDITURE, 1964 TO 1966**

University, etc.	1964	1965	1966
	\$'000	\$'000	\$'000
Sydney	4,640	5,154	5,676
New South Wales(a)	4,450	4,352	4,832
New England	1,364	1,454	1,550
Newcastle . . . . .	..	618	704
Macquarie . . . . .	..	112	224
Melbourne	3,868	4,298	4,796
Monash	2,072	2,770	3,358
La Trobe . . . . .	..	106	218
Queensland(b)	2,968	3,430	3,884
Adelaide(c)	2,582	2,856	3,246
Western Australia	1,794	1,974	2,166
Tasmania	744	844	942
South Australian Institute of Technology	230	258	290
Total	24,712	28,226	31,886

(a) Includes grants for the University Colleges at Wollongong and Newcastle (the University of Newcastle as from 1 January 1965). (b) Includes grants of \$160,000, \$192,000 and \$240,000 respectively for each of the three years for the University College at Townsville. (c) Includes grants of \$112,000, \$208,000 and \$418,000 respectively for each of the three years for the University of Adelaide at Bedford Park (The Flinders University of South Australia as from 1 July 1966).

Since 1961 matched grants have been made on a basis of \$1 of Commonwealth money for every \$1.85 of income received by a university from fees and State grants. From 1951 to 1960 the matching ratio was, in general, \$1 to \$3.

Commonwealth grants for the teaching and administrative costs of residential colleges. From 1964 the grants consist of unmatched Commonwealth payments each year of \$5,000 (previously \$4,000) to each college affiliated with or administered by a university, plus the sum of \$30 for each resident student, and a further \$10 for each non-resident student receiving tutorial assistance. The total Commonwealth grant paid in 1965 was \$464,450.

Commonwealth grants for selected building projects in universities. Those grants, for the period 1964 to 1966, are shown in detail in the Second Schedule to the 1965 Act. Payments are made up to a given maximum for each project, on the basis of \$1 from the Commonwealth for every \$1 of State grants. From 1964 there was a change in this grant in that, where appropriate, an allowance for furnishings and equipment is included in the building grants for each project. Previously, separate grants were provided for these items. Also, from 1964, the schedule showing grants for university building projects includes grants for university computing facilities, but grants for the erection and alteration of buildings for halls of residence administered by universities are shown elsewhere. The total Commonwealth grant under this heading for each University is shown in the following table. The amounts shown include additional grants recommended in the *Report of the Committee on the Future of Tertiary Education in Australia* and approved by the Commonwealth Government.

**STATE UNIVERSITIES, ETC.: COMMON-
WEALTH GRANTS FOR BUILDING PROJECTS
ETC., 1964 TO 1966**

University, etc.	Amount
	\$'000
Sydney	4,680
New South Wales	3,880
New England	1,352
Newcastle	1,020
Macquarie	2,100
Melbourne	4,812
Monash	4,470
La Trobe	1,410
Queensland(a)	3,216
Adelaide(b)	3,668
Western Australia	1,920
Tasmania	936
South Australian Institute of Technology	662
Total	34,126

(a) Includes amount of \$100,000 for new university institution in Brisbane. (b) Includes amount of \$2,835,000 for University of Adelaide at Bedford Park (the Flinders University of South Australia as from 1 July 1966).

Commonwealth grants for special research projects in universities. Under the 1963 Act special provision is made to assist universities to develop and extend their research programmes, including the purchase of equipment. Under the 1961-1963 legislation grants were provided for equipment only. The grants are available on the basis of \$1 from the Commonwealth for every \$1 of State grants. For the 1964 to 1966 triennium the Australian Universities Commission recommended a Special Research Grant of \$10 million for the State universities. Of this amount \$6 million is being allocated by the Commission in agreement with State governments, while the remaining \$4 million is being allocated by the Australian Research Grants Committee (*see* page 618) to individuals or research teams whether inside or outside universities. To the end of 1965 \$4 million had been allocated by the Commission; the maximum amount available to each university is shown in the following table.

**STATE UNIVERSITIES: COMMONWEALTH
GRANTS FOR SPECIAL RESEARCH PURPOSES
ALLOCATED BY AUSTRALIAN UNIVERSITIES
COMMISSION, 1964 TO 1966**

University	Amount
	\$'000
Sydney	624
New South Wales	396
New England	120
Newcastle	34
Melbourne	624
Monash	176
Queensland(a)	288
Adelaide(b)	370
Western Australia	244
Tasmania	124
Total	3,000

(a) Includes \$12,000 for Townsville University College. (b) Includes \$40,000 for the University of Adelaide at Bedford Park (Flinders University of South Australia as from 1 July 1966).

Commonwealth grants for buildings for halls of residence and affiliated residential colleges. Under the 1963 Act an amount representing the grant available to each university for both types of student residence is shown in the Fourth Schedule. Previously, grants for buildings for university-administered halls of residence were included in the Schedule showing university building projects. Payments were made up to a given maximum for each project. For halls of residence the grant comprised \$1 from the Commonwealth for every \$1 of State grants. For affiliated residential colleges Commonwealth grants were up to half of the cost of a project, the other half being met from college or State Government sources. For the 1964-66 triennium, however, payments are made up to a given maximum for each project on the basis of \$1 from the Commonwealth for every \$1 of residential college funds and State grants. The maximum Commonwealth grants available for each State university in the 1964-66 triennium are shown in the following table.

STATE UNIVERSITIES: MAXIMUM COMMONWEALTH GRANTS FOR BUILDINGS FOR HALLS OF RESIDENCE AND AFFILIATED RESIDENTIAL COLLEGES, 1964 TO 1966

University	Amount
	\$'000
Sydney	632
New South Wales	588
New England	950
Newcastle	220
Melbourne	560
Monash	1,210
La Trobe	440
Queensland	774
Adelaide	640
Western Australia	618
Tasmania	354
Total	6,986

University income and expenditure

The following tables show particulars of the income and expenditure of each university in 1964 and the totals for 1960 to 1964.

UNIVERSITIES: INCOME, 1964
(\$'000)

University	Government grants(a)		Other income			Total income
	Cwlth Government grants	State Government grants	Donations and endowments(b)	Student fees(c)	Other income	

INCOME FOR SPECIFIC CAPITAL PURPOSES(d)

Australian National	4,990	..	..	..	192	5,182
Sydney	2,250	1,626	172	..	..	4,048
New South Wales	1,678	2,542	78	..	..	4,298
New England	368	804	204	..	58	1,434
Melbourne	1,228	1,842	222	..	..	3,292
Monash	2,676	2,678	..	..	..	5,354
Queensland	766	1,752	170	..	..	2,688
Adelaide	1,144	1,060	40	..	..	2,244
Western Australia	702	368	..	..	..	1,070
Tasmania	294	352	..	..	..	646
Total	16,096	13,024	886	..	250	30,256

For footnotes see next page.

UNIVERSITIES: INCOME, 1964—continued
(\\$'000)

University	Government grants(a)		Other income			Total income
	Cwlth Government grants	State Government grants	Donations and endowments(b)	Student fees(c)	Other income	

INCOME FOR OTHER PURPOSES

Australian National .	10,268	..	236	216	708	11,428
Sydney . . .	5,768	5,642	2,740	3,090	422	17,662
New South Wales .	5,162	6,700	474	1,808	664	14,808
New England . .	1,636	2,184	190	370	544	4,924
Melbourne . . .	4,440	4,188	1,404	2,312	1,888	14,232
Monash	1,930	3,056	230	510	256	5,982
Queensland . . .	2,814	3,752	1,412	1,790	356	10,124
Adelaide	3,164	4,168	460	792	398	8,982
Western Australia .	2,032	2,560	452	680	558	6,282
Tasmania	894	1,182	96	266	150	2,588
<i>Total</i>	<i>38,108</i>	<i>33,432</i>	<i>7,694</i>	<i>11,834</i>	<i>5,944</i>	<i>97,012</i>

TOTAL INCOME

Australian National .	15,258	..	236	216	900	16,610
Sydney	8,018	7,268	2,912	3,090	422	21,710
New South Wales .	6,840	9,242	552	1,808	664	19,106
New England . . .	2,004	2,988	394	370	602	6,358
Melbourne	5,668	6,030	1,626	2,312	1,888	17,524
Monash	4,606	5,734	230	510	256	11,336
Queensland	3,580	5,504	1,582	1,790	356	12,812
Adelaide	4,308	5,228	500	792	398	11,226
Western Australia .	2,734	2,928	452	680	558	7,352
Tasmania	1,188	1,534	96	266	150	3,234
<i>Total</i>	<i>54,204</i>	<i>46,456</i>	<i>8,580</i>	<i>11,834</i>	<i>6,194</i>	<i>127,268</i>

(a) Includes funds expended by various government departments and other bodies in respect of universities but not controlled by the universities. (b) In the case of endowments, only income from property and other investment of these endowments is included. The treatment of donations depends on the terms of the gift, etc. When the capital sum is specified to be expended over several years, only the portion of the capital sum allocated to each year is shown as income in that year, but if the capital sum is available for spending without limitation as to time, the full amount is recorded as income in the year it is received, irrespective of whether it is spent in that year or not. The capital value of land and buildings donated to the universities is not recorded as income, unless these properties are sold, in which case the amounts realized are included. (c) Excludes fees collected on behalf of student unions. (d) Income received specifically for new buildings, major alterations and additions to buildings, installation of services, purchase of land and buildings and major equipment.

UNIVERSITIES: EXPENDITURE, 1964

(\$'000)

University	Teaching and research	Administration and general overhead	Libraries	Buildings, premises, grounds	Sundry auxiliary expenditure	Total expenditure
Australian National	9,018	1,098	482	4,906	622	16,126
Sydney	13,294	1,502	664	4,692	394	20,546
New South Wales	10,660	1,310	614	3,908	786	17,278
New England	2,606	592	234	1,836	886	6,154
Melbourne	9,762	910	580	4,372	1,498	17,122
Monash	4,242	514	614	5,226	104	10,700
Queensland	7,832	596	438	3,668	192	12,726
Adelaide	6,646	638	602	2,414	448	10,748
Western Australia	4,166	478	300	2,098	630	7,672
Tasmania	1,656	232	134	812	160	2,994
Total	69,882	7,870	4,662	33,932	5,720	122,066

UNIVERSITIES: INCOME AND EXPENDITURE, 1960 TO 1964

(\$'000)

University	1960	1961(a)	1962(a)	1963(a)	1964(a)
Australian National—					
Income	7,572	11,328	11,182	12,992	16,610
Expenditure	7,174	10,106	12,276	14,020	16,126
Sydney—					
Income	11,994	14,032	16,438	19,232	21,710
Expenditure	11,450	14,606	16,342	17,302	20,546
New South Wales—					
Income	10,320	14,140	15,622	16,294	19,106
Expenditure	9,844	14,906	15,800	15,248	17,278
New England—					
Income	3,386	3,846	4,166	5,532	6,358
Expenditure	3,952	4,086	4,676	4,888	6,154
Melbourne—					
Income	11,470	11,194	14,614	15,390	17,524
Expenditure	10,316	12,228	15,412	15,340	17,122
Monash—					
Income	2,892	7,998	8,508	8,292	11,336
Expenditure	2,034	7,842	9,054	8,254	10,700
Queensland—					
Income	7,574	8,360	9,888	10,442	12,812
Expenditure	7,326	8,322	8,726	9,986	12,726
Adelaide—					
Income	5,190	7,008	7,836	9,152	11,226
Expenditure	5,516	6,734	7,478	10,020	10,748
Western Australia—					
Income	4,670	4,806	6,044	7,414	7,352
Expenditure	4,122	5,126	5,706	7,566	7,672
Tasmania—					
Income	2,354	2,550	3,304	2,764	3,234
Expenditure	2,306	2,648	3,264	2,828	2,994
Total income	67,422	85,262	97,602	107,504	127,268
Total expenditure	64,040	86,604	98,734	105,452	122,066

(a) Figures for 1961, 1962, 1963 and 1964 were compiled on a new basis and totals for individual universities are not necessarily comparable with previous years.

Other tertiary institutions

In addition to the degree-granting universities, various other institutions offer courses at tertiary level which may lead to a certificate, diploma, or similar qualification. Included among these institutions are technical colleges, which have been described on pages 597-9.

Teachers' colleges

The State Education Departments conduct teachers' colleges to train teachers for government schools. There are eight colleges in New South Wales, twelve in Victoria, four in South Australia, and two each in Queensland, Western Australia and Tasmania, making a total of thirty colleges. These colleges provide a variety of teacher training courses, including those for primary teachers, secondary teachers, and those specializing in teaching infants, handicapped children, art, music, and handicrafts. A description of the courses is given on page 593. Teachers' colleges are co-educational and, in the larger States, have been established in country areas as well as in cities. Students entering them have completed their secondary schooling and are usually about seventeen years of age. The principal and staff of the colleges are responsible to the Director of Education in the State concerned.

Kindergarten training colleges

The Kindergarten Unions in all States except Tasmania have established teacher training colleges providing three-year courses. The minimum entrance age is usually seventeen years and at least the Leaving Certificate is required for admission. In addition, in New South Wales, the Sydney Day Nursery and Nursery Schools' Association maintains a training college.

The pre-school teacher training courses in these colleges are all full-time diploma courses and are similar in content and standards. Teachers are trained for work with children between the ages of two and seven years, and the training courses include the study of general educational theory, the theory of pre-school education, general cultural subjects, and art and crafts (including music). In addition, training is given in practical pre-school teaching.

Agricultural colleges

There are seven State agricultural colleges—Hawkesbury and Wagga (New South Wales), Longerenong and Dookie (Victoria), Lawes (Queensland), Roseworthy (South Australia), and Muresk (Western Australia), offering a comprehensive course of two or three years leading to the award of a Diploma in Agriculture or in a specialized field such as animal husbandry, dairy manufactures, and horticulture. The School of Horticulture, Burnley, Victoria, also offers a three-year diploma course.

Agricultural colleges are government institutions administered by the State Departments of Agriculture in New South Wales, Victoria, South Australia, and Western Australia, and by the State Department of Education in Queensland. Their purpose is to teach the principles and practices of agriculture and its specialized branches to those intending to take up farming as a career and to those who propose to enter such occupations as agricultural field officer or technical officer in food processing industries.

The minimum entrance standard is the penultimate major secondary examination of the State concerned, except in Western Australia where it is the sub-leaving examination. As entry is competitive, there is a tendency for students to hold better than the minimum qualifications. All the colleges are fully residential, and the minimum age at which students may enter them varies from fifteen to seventeen years, depending on the college and the type of course.

In addition to their formal courses of training, agricultural colleges offer short courses of from three days to one month to farmers and teachers in country districts.

Schools of forestry

Since 1965 tertiary training in forestry, previously carried out by the Australian Forestry School, Canberra, has been provided by a Department of Forestry in the Faculty of Science within the Australian National University's School of General Studies. A four-year degree course is offered. Training in forestry is also carried out at the Creswick School of Forestry in Victoria.

Conservatoria of music

There are conservatoria of music in five States. Those in Victoria and South Australia are attached to the Universities of Melbourne and Adelaide respectively. The New South Wales State Conservatorium, the Queensland State Conservatorium and the Tasmanian Conservatorium are controlled by the respective Departments of Education. All five conservatoria offer diploma courses for entry to which matriculation status is not required; at Melbourne and Adelaide degree courses are also available to matriculated students.

The Canberra School of Music was established in July 1965. It is administered by the Department of the Interior.

Service and administrative colleges

Each of the three armed services maintains institutions for the training of officers. Descriptions of these can be found in the chapter Defence. The Royal Military College, Duntroon, Australian Capital Territory, has arrangements with universities whereby its graduates may enter university courses at an advanced stage. The Royal Air Force Academy, Point Cook, Victoria, has evolved from the Royal Australian Air Force College, which was established in 1948 as a tertiary training centre to provide a professional education for permanent officers of the Air Force. It is affiliated to the University of Melbourne and has adopted that University's Bachelor of Science course leading to the degree of Bachelor of Science (Melbourne). The Academy is also permitted to present students for higher degrees in science and the degree of Doctor of Philosophy. Students may also proceed to the University of Sydney to take a degree in Engineering.

The Australian School of Pacific Administration, controlled by the Department of Territories, trains students in the various aspects of service and administration in Commonwealth Territories, including teaching.

Australian Administrative Staff College

Opened in 1957, the Australian Administrative Staff College is a private organization working in close co-operation with government and other public bodies, the armed services and the trade union movement. It was founded, and is owned, by a large group of leading Australian companies and has its permanent premises at Mount Eliza, near Melbourne. The College conducts residential courses for administrators to further the study of the problems which arise in managerial work.

Commonwealth activities in education

Fields of activity

Although education is primarily the responsibility of the States, the Commonwealth has instituted a number of measures of direct assistance to educational institutions and to students. It is responsible for public education in its own Territories and is engaged in educational activities incidental to its responsibilities in such areas as defence, external relations, immigration, and social services. Activities of the Commonwealth in education are not administered by a single authority but are divided among a number of departments and instrumentalities. Education in Commonwealth Territories is described in the chapter The Territories of Australia; various schools and colleges for the defence services are treated in the chapter Defence; and other activities which may be considered broadly as educational are described in the section on Broadcasting and Television and elsewhere in the chapter Transport and Communication.

Education Division, Prime Minister's Department

The major responsibilities of the Commonwealth in support of education services in Australia rest with the Minister-in-charge of Commonwealth Activities in Education and Research. He is assisted by the Education Division of the Prime Minister's Department which, under the Minister's direction, is concerned with Commonwealth policy in education and support of research and with Commonwealth-State relations in this field, including, in particular, grants for universities, colleges of advanced education, technical training facilities, and science laboratories; special grants for research projects; and the various Commonwealth Scholarship schemes.

Commonwealth Office of Education

The Commonwealth Office of Education, whose officers are members of the Education Division, Prime Minister's Department, was set up under the *Education Act 1945* to provide advice to the Commonwealth Government on educational matters and to serve as a channel for liaison between Commonwealth and State educational authorities. Among its major commitments are those which arise from international relations in education, including the association of Australia with the aims and activities of the United Nations Educational, Scientific and Cultural Organization (UNESCO), and the planning and supervision of training for overseas students given awards by the Australian Government to attend Australian universities and similar institutions. The Office acts as the administering authority for Australian participation in the Scheme of Commonwealth Co-operation in Education and concerns itself with the techniques of teaching English as a second language in connection with the assimilation of immigrants and tuition for sponsored foreign students.

Commonwealth Scholarships Board

This Board under its former title of the Universities Commission was also established by the *Education Act 1945*. Prior to 1945 the Commission had functioned under wartime National Security Regulations. The Board consists of a chairman, who is the Director of the Office of Education, and four other members. The main responsibilities of the Board at present are advising the Government on the policy and administration of Commonwealth University and Commonwealth Advanced Education scholarships and Commonwealth Post-graduate Awards. The Board

is responsible for arranging and supervising the training of ex-service personnel and war widows at university and university type institutions under the Korea and Malaya Training Scheme and the Disabled Members' and Widows' Training Scheme. It was also responsible for arranging and supervising training under the Commonwealth Reconstruction Training Scheme until its completion at the end of 1961.

Advisory bodies

The Commonwealth Government has established various advisory bodies whose fields of concern relate to matters of education. Already mentioned (pages 610-11) is the Australian Universities Commission which advises the Commonwealth Government on university development. The Commonwealth Advisory Committee on Advanced Education advises the Minister on the balanced development of tertiary education outside universities. Within financial limits nominated by the Minister, the Committee recommends grants to the States for colleges of advanced education and directs grants to any such colleges established by the Commonwealth. The Australian Research Grants Committee advises the Minister on the merit of applications for research grants from individuals and research teams, and suggests the allocation of funds. The Queen Elizabeth II Fellowships Committee advises the Minister on the merit of applicants for these Fellowships, which are awarded for post-doctoral study in the physical and biological sciences, and advises generally on the administration of this scheme of Fellowships.

Assistance to students

The Commonwealth Government provides financial assistance to students who are undergoing tertiary training through a number of scholarship schemes, all of which are administered by the Commonwealth Scholarships Board. The most extensive of these is the Commonwealth University Scholarship Scheme, under which 6,000 scholarships are offered annually to undergraduates at universities.

The majority of the undergraduate scholarships are open entrance awards allocated among the States on a population basis and awarded competitively on the results of examinations accepted for matriculation in each State. In addition, 1,530 later year awards are available to students who have completed one or more years of a course, and mature age awards are available to older persons in the twenty-five to thirty years age group. All successful applicants have their fees paid. Scholarship holders may also be paid a living allowance subject to a means test. As from 1 January 1965 the maximum rates of allowance have been £396 10s. (\$793) per annum for a scholar living away from home and £260 (\$520) per annum when living at home.

At 30 June 1964, 18,464 Commonwealth scholars were enrolled in undergraduate courses. These included 5,610 new award holders. Up to the end of 1964, 24,368 scholars had completed undergraduate courses under the scheme. In addition to these awards the Commonwealth Government provides up to 1,000 scholarships each year for students taking approved courses of advanced education at institutions other than universities. Benefits are as for Commonwealth University Scholarships.

In 1959 a scheme of Commonwealth post-graduate awards tenable at Australian universities was introduced under which 100 awards were made available each year. The benefits comprise a living allowance without means test, and payment of university fees. The possible number of post-graduate awards was increased to 225 from 1963 and to 400 from 1965. The Commonwealth Government contribution towards the stipend in respect of each award was raised to \$1,800 per annum from 1 January 1964. Awards may be renewed annually up to a maximum period of four years; in 1965, 621 students were holding awards.

When training under the Commonwealth Reconstruction Training Scheme was completed at the end of 1961, a total of 21,424 students had completed training. At the end of 1965 twenty-three students were in training under the Korea and Malaya Training Scheme and the Disabled Members' and Widows' Training Scheme, seven of them following full-time courses.

The Commonwealth schemes of secondary and technical scholarships are referred to on page 596.

International relations

The Commonwealth has been actively involved in the considerable extension which has recently taken place in relations and exchanges with other countries in the field of education. A significant encouragement to this growth has been membership in UNESCO, to which Australia has belonged since 1946 when the organization was founded.

Twelve specialist UNESCO committees in Australia are responsible for a wide and varied programme of activities and have helped to make Australia's contribution to many international conferences and seminars highly effective. The Committees' projects include the organization of Australian and regional seminars, information programmes, and the preparation and circulation of travelling exhibitions which deal with subjects forming part of UNESCO's programme. The Australian National Advisory Committee for UNESCO co-ordinates the work of the specialist committees and advises the Commonwealth Government on Australian participation in UNESCO.

With the co-operation of educational institutions, State Education Departments and other bodies, the Commonwealth has accepted increasing commitments in schemes of international assistance and co-operation. The Colombo Plan Technical Co-operation Scheme, the United Nations Expanded Programme of Technical Assistance, the Australian International Awards Scheme, the Australian South Pacific Technical Assistance Programme, and the Special Commonwealth African Assistance Plan are some of the programmes through which the Commonwealth Government is providing training for overseas students in Australia and is sending Australian experts and equipment to many of the newly developing countries, especially in Asia and Africa. Australia is also actively sharing with other Commonwealth countries in the Scheme of Commonwealth Co-operation in Education which includes the Commonwealth Scholarship and Fellowship Plan. There were some 1,700 sponsored foreign students in Australian educational institutions in 1965, compared with about 800 in 1956. Over three-quarters of these were Colombo Plan trainees, most of whom were studying in various fields of engineering, science, medicine, education and economics.

In 1964, by agreement between the United States and Australian Governments, the Australian-American Educational Foundation, financed jointly by the two Governments, was established to operate a scheme of educational exchanges between the United States and Australia. This new scheme has similar aims and purposes to the Fulbright Scheme which it replaces and which had operated wholly on American funds.

Support is given to Australian participation in many international governmental and non-governmental organizations. For example, Australian educationists have attended yearly meetings of the International Bureau of Education, and regular contributions are made to the Bureau's international surveys into various aspects of education. Assistance has been given to bodies such as the Australian Teachers' Federation in sending delegates to meetings of the World Confederation of Organizations of the Teaching Profession.

Grants for other educational purposes

The Commonwealth gives assistance to various educational schemes and institutions. Grants are made each year by the Commonwealth to the Australian Pre-school Association for the development of kindergarten education, to the Commonwealth National Fitness Council, to the Australian Council for Educational Research, to the Department of Adult Education at the University of Sydney for the publication of the *Current Affairs Bulletin*, and to assist in the provision of training in occupational therapy, physiotherapy, and nursing. The cost of the Departments of Indonesian and Malayan Studies at the University of Melbourne and the University of Sydney is also met by the Commonwealth Government.

Migrant education

The Commonwealth Government's post-war immigration policy has brought to Australia a large number of immigrants with little or no knowledge of English. To assist the assimilation of these newcomers into the Australian community, a system of migrant education has been developed to teach them English and to give them information about Australia. This service is provided free of charge to immigrants above school leaving age.

Before arriving in Australia migrants who do not speak English are given some instruction in English by shipboard education officers. Some may have attended classes in Europe organized by the Inter-governmental Committee for European Migration, with which the Australian Government co-operates. In Australia evening classes are arranged by State Education Departments wherever nine or more migrants in country areas, or twelve or more migrants in city areas, wish to learn English. There is also available through State Education Departments a free correspondence course in English. In addition, English lessons are broadcast regularly by the Australian Broadcasting Commission. The Commonwealth Office of Education provides technical advice on all aspects of migrant education and is responsible for the preparation of teaching materials, while responsibility for the overall supervision of the programme rests with the Department of Immigration, which also meets the costs.

In November 1965, 12,670 migrants were enrolled in classes and 6,986 were enrolled in radio and correspondence courses. Since the inception of the programme in 1948 approximately 500,000 migrants have been enrolled for English tuition.

Technical training by government departments

Although most needs of departments for trained staff are met by apprenticeship schemes and other technical college courses and by the universities, some departments provide training which is not available elsewhere. The most important field for which such training is provided is the training of telephone, telegraph, radio, and television technicians by the Postmaster-General's Department.

Adult education

The term 'adult education' as used in Australia refers mainly to non-vocational educational and cultural activities for adults. While the nature of the recognized adult education authorities varies from State to State, their major activities have many common features. Regular courses of lectures are organized on such topics as literature, music, drama, international affairs, languages, and crafts. Some authorities also organize discussion groups, festivals and summer schools, and provide special services for groups in remote areas. In 1960 an Australian Association of Adult Education was formed, and its first Annual Conference was held in Adelaide in 1961. The Association handles matters pertaining to adult education at a national level and arranges liaison with similar bodies in other countries.

One of the first bodies active in the field of adult education in Australia was the Workers' Educational Association, which formed associations in all States in 1913. Its aims are to bring the universities into closer relationship with the community in general and to provide for higher education in civic and cultural subjects. These associations have been superseded by Adult Education Boards or Councils set up by the State Governments in Victoria, Queensland and Tasmania, and by the University in Western Australia. In the other two States, New South Wales and South Australia, the associations continue to co-operate with the universities in their extension work and are given direct grants by the Governments concerned.

There are throughout Australia various other organizations which are active in the field of adult education. The New Education Fellowship, for example (see page 623), has since its inception in Australia been interested in adult education.

The organization of adult education and some of the activities in each State are described in the following pages.

New South Wales

The majority of State Government grants for adult education are allocated on the advice of the Adult Education Advisory Board. Grants are made to the University of Sydney (Department of Adult Education), the Worker's Educational Association, the University of New England (Department of University Extension), the Public Library of New South Wales (Adult Education Section), the Arts Council of Australia (New South Wales Division), and the New Education Fellowship.

University of Sydney. There were formerly two separate authorities concerned with adult education at the University of Sydney, the Extension Board and the Department of Tutorial classes. However, administrative amalgamation of the work of these two bodies took place in 1964 with the formation of a new Department of Adult Education. This new Department provides all the services previously supplied by the two bodies. The two earlier bodies, however, maintain their identities under the new organization. The work of the Department of Adult Education is carried out under the supervision of two Senate Committees, namely, the University Extension Board and the joint committee for Tutorial Classes.

The University Extension Board provides two forms of education—the extension of existing university education to the public in the form of lectures, or to graduates in the form of refresher courses; and the extension of academic education beyond the existing university curriculum by special courses or classes in subjects not provided by University Departments. The Joint Committee for Tutorial Classes works in conjunction with the Worker's Educational Association. Its activities include the provision of tutorial classes in a wide variety of subjects, discussion groups, and 'kits' to serve the needs of country districts and people who cannot be catered for by tutorial classes. It also publishes the fortnightly *Current Affairs Bulletin*.

University of New South Wales. The Division of Post graduate and Extension Studies was formed in 1961 and is largely financed by the Council of the University. Its major concern is to provide university courses of an academic nature through correspondence, radio and television. In addition, however, extension courses in the humanities, languages and child development are offered.

University of New England. The Department of University Extension at the University of New England brings university extension activities especially to the people of northern New South Wales and conducts lectures, discussions, courses, radio talks, and classes in arts and social sciences in towns throughout this region. Short residential courses are held on topics of interest to primary producers in the area. Vacation schools attract participants from many other areas as well.

Workers' Educational Association. In addition to co-operating with the University of Sydney Department of Adult Education, the Workers' Educational Association itself provides classes in a wide variety of fields. It publishes *The Australian Highway*, a bi-monthly journal of adult education, and maintains a property near Sydney where short residential schools are held through the year. The Association also organizes educational conferences and public lecture series at frequent intervals.

Public Library of New South Wales. The Public Library of New South Wales Adult Education section provides an adult education library service for all classes and groups conducted by the bodies mentioned above, with the exception of the University of New South Wales Division of Postgraduate and Extension Studies.

New South Wales Department of Education. The New South Wales Department of Education has established evening colleges consisting of classes held in school buildings and staffed largely by departmental teachers. Such colleges provide a wide range of educational, cultural and leisure activities for adolescents and adults, and at some there are facilities enabling adults to prepare for public examinations.

Arts Council of Australia. Adult education of a more informal kind is provided by the New South Wales Division of the Arts Council of Australia, which maintains a mobile theatre unit and organizes touring ballet, opera and drama companies to country towns.

Victoria

The Council of Adult Education is a government instrumentality established by the *Adult Education Act* 1946. Its aims are to stimulate adult education in Victoria and to encourage voluntary organizations and associations by giving them advice and assistance. Its activities include a variety of classes, usually lasting from ten to twenty weeks, on topics ranging from social studies, psychology, language and literature to crafts, music and drama. The general Summer School organized by the Council of Adult Education for many years, is no longer held. In its place four separate non-residential schools are held in the Melbourne area. The Council publishes a monthly newsletter *Group Affairs* and a quarterly journal *Adult Education*. Its group service assists, and provides programme material for, discussion groups formed by organizations and individuals throughout the State. An important development is the extension of the council's activities, including classes and discussion groups, to the prisons, as part of a general plan for penal reform in Victoria. Through its Community Arts Service the Council organizes tours by musicians and by theatrical and other companies to country towns which otherwise would have no opportunity of seeing such performances. The Council's income is derived mainly from a government grant, but also from student fees and Community Arts Service performances.

The University of Melbourne Extension Committee arranges free public lectures and organizes classes for matriculation students on points of interest in their studies.

The Victorian Education Department arranges classes in commercial subjects, arts and crafts, and shorthand and typing. Evening classes in leaving and matriculation subjects are also offered.

Queensland

The Queensland Board of Adult Education was constituted in 1944 and is responsible under the Minister for Education for the provision of adult education facilities throughout the State. Under the executive officer of the Board are seven district officers, one based in Brisbane and six in large country towns, who are responsible for organizing activities in country areas. The cost of the programme is borne by the State Government and admission to all courses is free. Activities include lectures, group meetings on a variety of topics, generally short-term but some extending over a full year, and film screenings. Library and film services are provided. A Public Lecture Committee established by the University of Queensland is responsible for organizing public lectures by local speakers and distinguished visitors to the University. Through the Institute of Modern Languages the University provides facilities for the study of modern languages by members of the general public.

The Queensland Division of the Arts Council of Australia sponsors and organizes lectures, film screenings, exhibitions, drama festivals, and professional performances.

South Australia

Since 1917 the University of Adelaide, through the Joint Committee for Tutorial Classes, has provided in the metropolitan area a series of tutorial classes, lecture classes and study circles on a wide range of subjects of cultural and current interest, in co-operation with the Workers' Educational Association of South Australia. In 1957 a Department of Adult Education was established in the University and a full-time Director appointed. A wide range of university extension courses and educational conferences, summer schools and seminars, including a number dealing with subjects at post-graduate level, are organized directly by the University. The Workers' Educational Association of South Australia, in addition, carries on an independent educational programme of classes, schools, exhibitions, and film festivals.

The State Education Department also arranges an extensive programme of educational activities for adults. In addition to classes in academic and craft subjects, the Department's Adult Education centres offer a wide range of leisure interests and cultural subjects.

The Arts Council of Australia (South Australian Division) organizes adult education activities in the liberal arts.

Western Australia

Adult education in Western Australia is organized by the Adult Education Board established in 1928 under the terms of the statutes of the University of Western Australia. The Board has a considerable degree of autonomy. Its executive officer is the Director of Adult Education. In the metropolitan area the Board conducts classes, refresher courses and short schools, conferences, seminars, and public lectures and maintains a library. The Board's country work operates mainly through a box library scheme for discussion groups. Lecture tours and week-end schools are held, and local adult education is encouraged through local committees. Metropolitan work and country work are drawn together in an annual summer school. The Board also operates a community arts service and arranges screenings of foreign films. Regional drama festivals and music festivals are arranged, culminating in the annual Festival of Perth, inaugurated and administered by the Board.

Tasmania

Some form of adult education has existed since the formation in 1913 of a Workers' Educational Association, which worked in conjunction with the University of Tasmania for a number of years. The Association received a grant through the university, which had a Director of Tutorial Classes. Later, the grant was paid direct to the Association by the Government, and the university's tutorial department ceased to exist. The Adult Education Board, established under the *Adult Education Act* 1948, organizes classes of ten weeks duration on a wide range of subjects. The Board sponsors special lectures, film screenings and art exhibitions, recitals of music, and dramatic performances in both city and country areas. Its income is derived from a State Government grant and from students' fees. The executive officer of the Board is the Director of Adult Education. Activities are organized on a regional basis by organizers based in Hobart, Launceston and three large country centres.

The Arts Council of Australia (Tasmanian Division), which works in close contact with the Adult Education Board, organizes exhibitions, concerts and public performances.

Australian Capital Territory

The School of General Studies of the Australian National University has organized classes and discussion groups through its Adult Education Department since 1959.

The Arts Council of Australia (A.C.T. Division) organizes cultural activities of general community interest.

Overseas students in Australian educational institutions

The development of closer ties in education between Australia and other countries and the demand for education in many countries in Asia, Africa and the Pacific have brought about a remarkable growth in the number of overseas students who come to Australia to further their education. Part of the growth and much of the awareness of the facilities available may be attributed directly to the schemes mentioned on pages 618-9. Since 1955, when there were about 3,500 overseas students in Australia, the number has increased to almost 13,000 in 1965. More than half attend institutions of higher education such as universities and technical colleges. Between 1955 and 1965 the numbers of foreign students in institutions of higher education have risen from about 1,800 to 7,200, most of whom came from Asian countries. Australian institutions have shown a readiness to accept overseas students, and in many cases special provisions have been made to suit their needs. Nevertheless, population growth and the demand for education, especially for higher education, within Australia have forced many institutions to restrict the admission of overseas students in common with Australian students.

Organizations associated with education

Australian Council for Educational Research

The Australian Council for Educational Research, a non-governmental body, is engaged on educational research in a wide variety of fields, ranging from tertiary to pre-school education. It conducts surveys and inquiries, makes grants to approved educational investigators, serves as a centre for disseminating educational information, provides training for research workers, and standardizes and distributes educational and psychological tests for use in Australia. Although this council is an autonomous body, the Commonwealth and State Governments give substantial financial support.

New Education Fellowship

The New Education Fellowship is a world organization of parents, educators and other citizens interested in the development of new educational practices. It was founded in London in 1915 and spread to Australia at the time of a regional conference held here in 1937. There are now sections in each State. Its Australia-wide journal *New Horizons in Education* is published twice a year. A major conference of the world organization was held in Australia in 1962, during which prominent educationists from Australia and overseas met in all States.

Australian College of Education

The Australian College of Education was formed in 1959. Its aim is to bring together leading teachers and administrators in every field of education, to raise the standard of the profession of education in Australia, to establish and proclaim fundamental educational values, and to recognize outstanding contributions to educational practice. Chapters of the College have been set up in all States, and several of the addresses and papers delivered at meetings of the College have been issued in published form.

Parent and citizen organizations

In Australia, where all government schools are administered by central departments, there is limited opportunity for local participation in education. Public interest is expressed through parents' committees or organizations of parents and other citizens interested in supporting their local school. The Education Acts of all States provide for the formation of groups of this type, whose aims are to promote an interest in the school by bringing parents and teaching staff together, to help provide supplementary teaching aids and recreation materials, to foster the regular attendance of children at school, and to help find accommodation for teachers. In several States the general maintenance of school buildings, equipment and grounds is a statutory responsibility of the parent groups, costs being covered by government grants. Lunch canteen services at local schools are maintained by groups in some States. Parent groups have established school children's insurance schemes, operated through State Government insurance offices or private insurance companies. These schemes cover accidents to children which occur between the time of leaving home for school and returning home by the usual direct route.

State-wide councils or federations of parents' groups are associated in a federal body, the Australian Council of School Organizations.

CULTURAL ACTIVITIES

Libraries

The Munn-Pitt report of 1935 greatly stimulated interest in libraries and librarianship throughout Australia. This is seen in the rapid development of libraries, the passing of legislation in all States to increase library services, and the establishment in 1937 of the Australian Institute of Librarians to improve the standard of librarianship. This body was reconstituted in 1949 as the Library Association of Australia and incorporated by Royal Charter in 1963, and its functions now include the promotion and improvement of libraries and library services. The Association conducts annual examinations in all States, for which students are prepared by courses of instruction. Formal library schools are conducted by the National Library of Australia, Canberra, the Library Board of New South Wales (held at Newcastle Public Library), and the State Library of Victoria, Melbourne. In 1960 the first library school to be attached to an Australian University was opened in the University of New South Wales, and the Royal Melbourne Institute of Technology set up a library school in 1963.

Commonwealth libraries

National Library of Australia. This Library grew directly from the Library of the Commonwealth Parliament established in Melbourne in 1901, the Committee of which soon afterwards announced its intention of developing a library patterned on the Library of Congress at Washington, U.S.A., capable of serving purposes beyond those essential to the Parliament itself, appropriate to a national library and on a national scale. This policy was steadily pursued, so that, in addition to its primary function of serving Parliament, it gradually became a central source of information for the Government and its departments and other agencies, and assumed increasing reference and bibliographical responsibilities in relation to scholarship and research in Australia and abroad. It was also influenced by the basic elements of the national library concept of the older countries of Europe: namely, that a national library is the proper place to collect the national literature systematically and to make it known and available for use, and that it is a place to which scholars may turn for what is most significant in the literature of other countries. For these growing extra-Parliamentary activities the Parliamentary Library Committee, in 1923, adopted the title of Commonwealth National Library.

In 1957 a committee appointed to examine the future control and functions of the Commonwealth National Library recommended its establishment as the National Library of Australia, separate from the Parliamentary Library, with wide functions and controlled by a board subject to a Minister; the transfer, as a separate agency to an appropriate department, of its Archives Division, which constituted the Commonwealth's agency for the custody and organization of departmental records of permanent value which need no longer be held within departmental offices; and that the Parliamentary Library be a separate library under separate Parliamentary control. Continuing co-operation, where possible, between the two libraries was also proposed.

Effect was given to these recommendations by the *National Library Act* 1960, which created the National Library of Australia as a body corporate under the control of a Council of nine members, of whom one is a Senator elected by the Senate, one a member of the House of Representatives elected by that House, and seven appointed by the Governor-General. Its functions are: to maintain and develop a national collection of library material, including a comprehensive collection relating to Australia and the Australian people; to make the national collection available to such persons and institutions in such manner and subject to such conditions as the Council determines with a view to its most advantageous use in the national interest; to make available such other services in relation to library matters and material, including bibliographical services, as the Council thinks fit, particularly for the purposes of the library of the Parliament, the Departments and authorities of the Commonwealth, and the Territories of the Commonwealth; and to co-operate in library matters (including the advancement of library science) with authorities or persons, whether in Australia or elsewhere.

The National Library comprehensively collects and preserves Australian books, periodicals, newspapers, government publications, pictures, prints, manuscripts, maps, moving picture films and sound recordings. It is assisted in this by the deposit provisions of the *Copyright Act* 1912-1950 and has also been enriched by the acquisition of such notable collections as the Petherick collection of 16,500 items in 1911, the Cook manuscripts in 1923, the Cumpston collection on Public Health in Australia in 1936, the Mathews Ornithological collection in 1940, the Nan Kivell collection of 16,000 items of Australian and Pacific interest including original paintings, prints, manuscripts and printed material in 1959, the David Nichol Smith collection of 18th century English literature in 1962, the Clifford Family collection in 1964, and the Ferguson collection which is still under transfer. A feature of the Library's Australian work is the copying on microfilm, in association with the Public Library of New South Wales, of all important unique material overseas relating to Australia, including over three million pages in the Public Record Office in London. Compilation of a guide to collections of manuscripts relating to Australia began in 1964. The Library maintains a permanent exhibition of selected paintings, prints and other historical material from its collections. This exhibition is displayed in Parliament House, Canberra.

The Library publicizes Australian publications, both at home and abroad, through select lists which include *Australian Books* (annual) and *Australian Public Affairs Information Service* which is a subject index to current literature (monthly with an annual cumulation), and by collections of Australian books maintained by it at all posts at which Australia is officially represented abroad. In London and New York the National Library maintains and staffs Australian Reference Libraries supervised by its own Liaison Officers in those centres. In the discharge of its wider bibliographical responsibilities, the library publishes the *Australian National Bibliography* (monthly with an annual cumulation), which lists books, pamphlets, maps, prints, sheet music, government publications, the first issue of each new periodical or newspaper, and moving picture films produced in or relating to Australia. Commonwealth and State official documents, both monographic and serial, are listed in *Australian Government Publications* (annual). The Library is also building up union catalogues of serials in the social sciences and humanities, and of monographs in Australian libraries. A revised loose-leaf edition of *Serials in Australian Libraries: Social Sciences and Humanities*, of which the letters A-E have been issued since 1964, will progressively supersede the interim edition published in two volumes in 1963.

In 1956 the Australian Bibliographical Centre was established within the National Library to serve as the secretariat of the Australian Advisory Council on Bibliographical Services. The Council, made up of representatives of the National Library, State libraries and library boards, the Commonwealth Scientific and Industrial Research Organization, each of the universities, and the Library Association of Australia, plans the further development and co-ordination of bibliographical services and co-operates with UNESCO and its committees. The Centre organizes bibliographical projects recommended by the Council and operates as a centre for bibliographical information in Australia and overseas. It has published a *Union List of Newspapers in Australian Libraries: Part 1: Newspapers published outside Australia* (1959); and *Part 2: Newspapers published in Australia* (1960). Both were supplemented in 1964. *Resources of Australian Libraries*, a summary report of a survey conducted for the Council in 1961 by Maurice F. Tauber, was published in 1963.

The Library acts as a central library of documentary and educational films, its film collection containing approximately 8,000 titles, together with Australian historical films and a great number of film strips. It published *Australian Films: a Catalogue of Scientific, Educational and*

Cultural Films, 1940-58 in 1959 and annual supplements in succeeding years. A revised edition of the *Catalogue of 16-mm. Films*, which lists all films available for loan, was published in 1960. It was supplemented in 1964 and annual accession lists are issued. Special efforts are made to discover and preserve samples of early Australian film production.

Through its Extension Services Section the Library conducts the Canberra Public Library Service for residents of the Australian Capital Territory, to whom 702,931 books were lent during 1964-65. It also assists in the provision of similar services in the Northern Territory, the Territory of Papua and New Guinea, and Norfolk Island.

The National Library's collections contain approximately 810,000 volumes, 26,000 paintings, pictures and prints, 15,000 reels of microfilm, 1,000 running feet of manuscripts, 25,000 motion picture stills, 14,800 reels of moving picture films, 135,000 maps, and 400,000 aerial photographs. Special features of the book collection are its strong holdings of Australiana, materials relating to the Pacific area and east and south-east Asia, the publications of foreign governments and international organizations, and works in the social sciences, particularly in political theory and economics.

Patent Office Library. The Library of the Commonwealth Patent Office, Canberra, contains approximately 10,650 books and a wide variety of periodicals and other literature relating to pure and applied science, industrial technology and the industrial property (patent, trade mark, design and copyright) laws and practice of most countries. Patent specifications of inventions are received from the principal countries of the world; present holdings are more than 9,500 000. Indexes include a microfilm of a classified index to 3,000,000 U.S.A. patents and translations of abstracts of U.S.S.R. patents.

Commonwealth Archives Office. In 1943, following a report by an Inter-departmental Committee, the Prime Minister directed the formation of a War Archives Committee to arrange for the preservation of war records. This Committee recognized that war archives could not be separated from peace-time archives, and in 1946 the name was changed to the Commonwealth Archives Committee. In 1952 the National Library became the sole Archival Authority for the Commonwealth, and the Chief Archives Officer became the Executive Officer for the Committee. In March 1961, in accordance with a recommendation of the National Library Inquiry Committee, the Archives Division of the National Library was reconstituted as the Commonwealth Archives Office within the Prime Minister's Department. The Archives Office is primarily a central agency for the control of those records created by the Commonwealth Government which are no longer required for frequent use in the day-to-day business of government. This function is carried out through the following three basic activities.

Control of destruction. No Commonwealth records may be destroyed without the concurrence of the Chief Archivist whose responsibility it is to safeguard reference interests other than those of the department which compiled the records. This concurrence is given as far as practicable through continuing disposal authorities which enable Commonwealth departments to destroy certain routine classes of records automatically, but records not covered by such continuing authorities are checked before destruction is authorized.

Provision of accommodation. Any records which are no longer in active use but which are considered, either by the originating department or by the Archives Office, to warrant preservation, either permanently or for a further period, may be transferred to an archives repository. While in archival custody they are arranged and described so that the best use can be made of them.

Provision of information. Records in the custody of the Archives Office are available for use by the depositing and other departments of the Commonwealth Public Service. The Office also provides departments with a service for the provision of information from the records in its custody.

As a complementary function the Office also provides a service to persons engaged in academic and other forms of research. The headquarters of the Commonwealth Archives Office is in Canberra and there are branches in Sydney, Melbourne, Brisbane, Adelaide, and Perth.

Commonwealth Scientific and Industrial Research Organization. The library holdings of the Organization cover the pure and applied sciences. In addition to the Central Library in East Melbourne, each of the Divisions and Sections has a specialized collection covering such subjects as food preservation, forest products, chemistry, physics, animal health, and fisheries. The collections are particularly strong in the publication of oversea scientific and technical research institutions, with many of which extensive exchange arrangements have been made.

The Central library maintains a union catalogue of the holdings of all C.S.I.R.O. libraries and is responsible for the following publications: *Scientific Serials in Australian Libraries*; *Australian Science Index*, an index of articles published in Australian scientific and technical periodicals; a *Directory of Scientific and Technical Research Centres in Australia*; and *C.S.I.R.O. Abstracts*, which include abstracts of papers published by C.S.I.R.O. officers,

C.S.I.R.O. translations, translations available from other Australian organizations, and additions to the British Commonwealth Index of Scientific Translations. The larger libraries in the Organization have photocopying facilities which, while normally for internal use, provide a service for the public when a publication is not held elsewhere in Australia.

The Australian War Memorial Library. In the War Memorial library are housed the documentary and pictorial records of Australia's fighting services in the 1914-18 and 1939-45 Wars, together with collections covering the war in Korea, 1950-53, and earlier wars in which Australian troops participated—Sudan, 1885; South Africa, 1899-1902; and the Boxer Rebellion in China, 1900-01. Books, periodicals and other records covering contemporary trends and events in the fields of military history and military science are constantly being added.

The printed records section contains approximately 70,000 volumes, a large collection of military maps, newscuttings and newspapers, sound recordings of war leaders, personalities and events, war posters, and postage stamps. Many personal collections by distinguished soldiers and historical documents relating to the wars have also been placed in the Memorial's custody for preservation. Written records comprise correspondence files of headquarters and units of both World Wars, and the original war diaries compiled from day to day by each unit during its service. The collection of official war photographs covering the 1914-18, 1939-45 and Korean Wars numbers over 250,000, and a collection of official motion picture film depicts Australia at war. Facilities for public research are not yet fully developed, but requests for information are met where practicable.

Other Commonwealth Government libraries. Most Commonwealth authorities have specialized collections in their own fields and in addition draw largely on the National Library.

Northern Territory Library Service. The Northern Territory Library Service maintains five centres in the Territory. At 30 June 1966 stocks totalled 52,371 volumes which were held at the following centres: Darwin, 24,035; Nightcliff, 3,829; Alice Springs, 16,298; Tennant Creek, 4,405; Katherine, 3,804.

State libraries

State Public Libraries (other than university *see* pages 630-2). In each of the capital cities, there is a well-equipped public library, the libraries in Melbourne and Sydney especially comparing very favourably with similar institutions elsewhere in the world. The following statement gives the number of volumes in the public library of each capital city at 30 June 1964. Later figures for some of the libraries and details of other library services in the States are given in the text relating to the respective States.

STATE PUBLIC LIBRARIES, 30 JUNE 1964

Library	Number of volumes in—		
	Reference branch	Ordinary lending branch	Country lending branch
Public Library of New South Wales	(a) 662,578	..	(b) 110,987
State Library of Victoria . . .	830,000	135,000	48,000
Public Library of Queensland . .	173,663	..	78,802
Public Library of South Australia .	220,558	(c) 92,960	220,660
State Library of Western Australia (d)	211,059	..	..
State Library of Tasmania . . .	96,355	(e) 210,283	172,950

(a) Includes 186,415 volumes in the Mitchell Library and 20,519 volumes in the Dixon Library. (b) Includes 1,941 volumes in the model school library. (c) Includes 34,178 volumes in the children's branch and 14,254 volumes in the youth lending branch. (d) The State Library is the reference division of the Library Board of Western Australia. (e) Includes 155,549 volumes in the children's branch.

New South Wales. The Free Library Movement in New South Wales, founded for the establishment of a system of public libraries on the basis suggested in the Munn-Pitt Report of 1935, helped to pave the way for the Library Act, 1939-1959, which was fully proclaimed as from 1 January 1944. At 30 June 1965, 168 councils had established libraries in terms of the Library Act. During 1965 they spent on their libraries \$3,536,582, including \$967,778 received in subsidy.

There are 225 libraries, of which sixty-six are in the metropolitan area and 159 in the country. There are also twenty-one bookmobiles, of which two are in Sydney, seven in the suburbs of Sydney and twelve in country municipalities and shires. These libraries contain 3,066,124 volumes.

New South Wales departmental libraries are staffed by officers attached for duty from the State Library, which also provides a central cataloguing service for municipal and shire libraries constituted under the 1939-1959 Act. The State Library maintains an adult education section servicing adult education activities for the universities of Sydney and New England and the Workers' Educational Association.

The Circulation Department forwards books on loan to country State schools, to municipal and shire libraries, and to individual borrowers. During 1964-65, 83,849 books were lent to small State schools, 3,637 to public libraries and institutions, many of them in country areas, and 32,749 to individual borrowers.

The State Library, known as the Public Library of New South Wales, includes a general reference department of 494,886 volumes, together with the Shakespeare Tercentenary Memorial Library and the Mitchell and Dixon Libraries and Galleries which are mainly devoted to Australian and Pacific material. The Mitchell Library, with more than 60,000 volumes and pamphlets and 300 paintings, was bequeathed to the trustees of the Public Library in 1907 by Mr. D. S. Mitchell, together with an endowment of \$140,000. In 1965 there were 207,550 volumes in the library, in addition to valuable manuscripts, maps and other material. In 1929 Sir William Dixon gave a collection of historical pictures then valued at \$50,000. These were subsequently added to and at his death in 1952 Sir William bequeathed the whole of his collection of books, manuscripts, pictures and other material, together with an endowment of more than \$226,000, mainly for the printing or reprinting of historical documents relating to Australia and the Pacific. The total number of volumes in the State Library now exceeds 832,000, apart from manuscripts, historical pictures and other material. The maintenance and control of the ordinary lending branch of the Public Library were transferred in 1908 to the Sydney Municipal Council to become the City of Sydney Public Library. The State Library, which had previously been the repository for State archives, transferred this responsibility to an Archives Authority in June 1961. The Authority consists of nine members, of whom the Trustees of the Public Library have a right to nominate one.

Other important libraries in New South Wales are: Teachers' Colleges, 280,022 volumes; the City of Sydney Public Library, 252,237; Railway Institute, 170,475; Technical Education Branch, 168,436; Australian Museum, 34,748; Government Transport Institute, 32,727; New South Wales Teachers' Federation Library, 22,500; Workers' Educational Association, 15,000; and the Library at the National Herbarium, 10,430 volumes. At 30 June 1964 the Parliamentary Library contained 149,500 volumes.

Victoria. Until the establishment of the Free Library Service Board in 1947 the only public library facilities available in Victoria (apart from those of the Public Library and one or two Metropolitan municipal libraries) were those offered by about 200 Mechanics' Institute Libraries situated in country areas all over the State. The Board's policy has been to replace these services with modern public libraries controlled by local Municipal Councils and subsidized by the Board. Since the Board's inception 112 municipalities have established libraries. Of these, twenty-seven are in the city and eighty-five in the country. An amount of \$854,000 was paid to the Councils in library subsidy for the year 1964-65 and \$1,648,000 was expended in municipal library services for the same year. More than 1,700,000 books are available to the communities in which libraries are established.

A feature of the services provided in the country is the number of co-operative or regional library groups now being developed. These services, of which there are eighteen comprising a total of seventy-two councils, consist of groups of councils which pool their financial resources, book-stocks and trained staff, in order to provide more comprehensive, efficient library facilities. Approximately 140 Mechanics' Institute Libraries are still in existence in country areas. In 1964-65 forty-five of them shared a grant of \$4,000.

The State Library of Victoria was established in 1856. It is controlled by a board of seven trustees and receives its finance from the State Government. The reference collections now total about 830,000 volumes, and the lending and travelling libraries have another 183,000 volumes. In addition, the library files 3,000 current periodicals, about 2,000 government publications from Australia and overseas, and 500 newspapers, in all about 50,000 volumes. Special collections include the J. K. Moir Collection of Australiana, the M. V. Anderson Chess Collection and the Green and Brodie Shipping Collections. The Victorian Historical Collection contains nearly 20,000 pictures, drawings, prints and objects of historical interest. The Archives Division is responsible for the preservation of government records. Under the *Library Council of Victoria Act* 1965 the administration of both the State Library of Victoria and of the Free Library Service Board will be merged under a nine-member council. The library system will be reorganized into

three divisions, namely the State Library Division, the Public Records Division (at present the archives division of the State Library), and the Extension and Circulation Division. The functions previously carried out by the Free Library Service Board will be carried out by this latter division.

Queensland. The Library Board of Queensland was established in 1945 under the provisions of 'The Libraries Act of 1943'. Its duty is to attain the fullest co-operation and improvement of the library facilities of the State, with the object of placing such facilities on a sound basis for the benefit and educational improvement of the citizens generally. The Board consists of eight members including the State Librarian as *ex officio* member and secretary. A general function of the Board is to ensure that the fullest co-operation exists with the Department of Education, the University of Queensland, local bodies, and other bodies having for their object the encouragement of education, literature and the arts and sciences. A specific function of the Board is the control and management of the Public Library of Queensland. Its policy is to build up the main collection of the Library as the State's reference centre.

The Country Extension Service, which is administered as a department of the Public Library, lends books of non-fiction free to adults and children residing outside the metropolitan area and to municipal libraries in areas of low population.

The Oxley Memorial Library, established in 1923, has been administered as a department of the Public Library since 1946 and the collection has been kept separate. It contains books, manuscripts, pamphlets and other graphic material relating to the history and literature of Australia, and of Queensland in particular, and provides facilities for research students in Queensland literature and history.

In 1958 the section of the Libraries Act dealing with the preservation of public records was proclaimed, and in 1959 an Archives Section of the Public Library was instituted and an archivist appointed.

The Library Board staffs the libraries of the Teachers' Colleges as well as the libraries of nine government departments, of which the largest is the Department of Primary Industries. The work is co-ordinated by an officer-in-charge, who also gives assistance and advice when required to independently staffed departmental libraries.

Since 1948 a course in librarianship has been held annually at the Public Library for the purpose of preparing trainees for the examinations of the Library Association of Australia, up to 1961 for its Preliminary Examination, from 1962 for subjects 1 to 3 of its re-organized Registration Examination. In 1959 a course covering some compulsory subjects of the Association's Registration Examination was inaugurated at the Central Technical College, Brisbane.

The holdings of the Public Library of Queensland and its extension services in 1964-65 were: main reference collection, 162,999 volumes and 9,507 maps and pamphlets; Country Extension Service, 84,227 volumes; Oxley Memorial Library, 23,681 volumes and 19,692 maps, pamphlets and miscellaneous items.

Local authorities are empowered by the Libraries Act to establish and conduct library services as a function of local government. The Board encourages local authorities to use these powers. In 1964-65 seventy-three local authorities were conducting 117 library services. The Brisbane City Council has established fifteen of these libraries. There were 100 libraries in Queensland free to adults. To help overcome the problems of a large area and sparse population, various local authorities provide library services on a regional basis. By 30 June 1965 four regional library services had been established: the South Western (seven shires), the Central Western (eight shires), the North Western (ten shires), and the Central Highlands (five shires), with head-quarters at Charleville, Barcaldine, Mt. Isa and Emerald respectively. Other regional services are being planned. During 1964-65 the Board received a grant of \$494,330 from consolidated revenue to finance the activities of the Public Library and to pay subsidies to local bodies of 50 per cent of endowable expenditure on books and the acquisition or improvement of library buildings and equipment. Subsidies were paid to four regional library service boards, fifty-three local authorities and thirty-seven other bodies.

The library of the Parliament of Queensland was established in 1860. At 30 June 1965 the library held 93,867 books and pamphlets, consisting of official publications and books devoted largely to history, the social sciences, biography and literature.

'The Libraries Act Amendment Act of 1949' provides for the Public Library and the Parliamentary Library each to receive a copy of all books, pamphlets, maps, and other printed material published in Queensland.

South Australia. In the reference department of the Public Library of South Australia there are about 227,600 volumes, most of which may be borrowed. Over 4,000 periodicals are filed and the collection of newspapers includes every newspaper printed in South Australia. There

are 46,200 volumes in the lending department available to persons living in the metropolitan area and the country lending service has 262,000 volumes, of which more than one-third are suitable for children. The library has an active programme for the publishing of facsimile editions of early Australian texts.

The Research Service specializes in scientific and technical inquiries and supplements the resources of the Public Library by borrowing from other libraries and by obtaining microfilm copies of material not available locally. It has an extensive collection of trade catalogues.

The library of the Parliament of South Australia held approximately 65,000 volumes at 31 December 1965.

There are twenty-two local public libraries in South Australia provided by fourteen local government authorities. The libraries are subsidized on a \$1 for \$1 basis by the State Government. The Libraries Board of South Australia, through the Public Library of South Australia, provides various central services. Book-stocks are pooled in the Public Library of South Australia and are interchanged between the libraries.

At the end of June 1965 these local public libraries contained 145,800 books. There were 93,856 registered borrowers. During 1964-65, 1,444,170 books were lent.

Western Australia. In 1955 the Library Board of Western Australia was made responsible for all public library services throughout the State to which the State Government contributes funds. The Board has the following major functions: to encourage local authorities throughout the State to establish public libraries and to provide as a State subsidy all books and bibliographical services necessary for such libraries when established; to administer the State Library; to advise the Government on all matters relating to libraries; and to provide for the training of librarians.

Local public libraries are subsidized on a \$1 for \$1 basis, the local authority providing accommodation and staffing, and the Board all books and related services. The Board provides at least one volume per head of the population. All non-fiction books may be made available at any public library throughout the State on request to the Board. All cataloguing is done by the Board. The first library under this scheme was opened in August 1954. By 31 December 1965 eighty-one libraries had been established.

The State Library, established in 1887, is the reference division of the Library and Information Service of Western Australia. In addition to providing the normal facilities of a reference library for the metropolitan area, it extends its service throughout the State through local public libraries. It is divided into four subject departments as follows: J. S. Battye Library of West Australian History; Library of Business, Science and Technology; Library of Social Sciences, Philosophy and Religion; and Library of Literature and the Arts.

The State Bibliographical Centre and the Central Music Library are housed in the State Library building and there is also a commercial information centre. The State archives are maintained by the State Library and managed by the staff of the Battye Library. The State Library is fully equipped with microfilm and photocopy apparatus.

The book-stock of the Board at 30 June 1965 was: 681,628 volumes comprising lending library services (including books in public libraries), 454,466 volumes; State Library, 216,700 bound volumes; Central Music Library, 2,561 books on music and 7,901 scores.

The University of Western Australia, through its Adult Education Board, manages the Adult Education Library of some 17,000 volumes of general reading and fiction. Books are sent to country readers each month.

There are some 100 special libraries in government departments and industrial firms. Union catalogues of periodicals and books received in the libraries in Western Australia are maintained by the Library Board of Western Australia in the Bibliographical Centre in the State Library building.

Tasmania. The Tasmanian Library Board, constituted in 1944, is responsible for administering the State Library headquarters in Hobart, for the extension of library services throughout the State, for the control of State aid to libraries and for the State archives. The first stage of a new State Library headquarters building in Hobart was completed in 1962. The State Government provided \$435,040 towards the cost of library services in 1964-65.

Municipal libraries are assisted with the purchase of books and participate in a book exchange scheme. In 1965 forty-five municipalities took part in the service, leaving only four outside the scheme. In Hobart the Board operates the Hobart Lending Library on behalf of the City Council. Two bookmobiles operate in Hobart and country districts, catering for areas without library premises, for children, old people's homes, etc.

The Board also operates a Reference Library in Hobart from which reference services are available to people throughout the State. There is also a documentary film library and a recorded music library. The Board arranges screenings of documentary films, recitals of recorded music, lectures, library weeks in country centres, puppetry demonstrations, etc.

The Parliamentary Library works in close collaboration with the State Library, which provides a reference officer to serve members during sessions.

University libraries

These libraries provide material not only for the education of graduates and undergraduates, but also for research workers and practical investigators all over the continent. Much of the material they contain is not available elsewhere, for although in most cases smaller, they are in many directions more highly specialized than the public libraries. They lend to one another and to State and private institutions as well as to individual investigators. Each of them is governed by a librarian, who is responsible as a rule to an executive sub-committee and a committee which is practically co-extensive with the professorial staff.

The following table shows the volumes held, accessions during the year, and expenditure of the Australian university libraries.

UNIVERSITY LIBRARIES, 1965

University	Volumes	Accessions during year	Expenditure (a)
			\$'000
Australian National	363,937	34,723	482
Sydney	922,176	52,224	664
New South Wales	274,208	41,067	615
New England	193,717	18,765	234
Newcastle	92,813	12,602	(b)
Melbourne	421,207	31,365	579
Monash	195,000	35,000	615
Queensland	379,276	42,676	438
Adelaide	383,213	29,199	603
Flinders	51,157	25,443	(c)
Western Australia	260,479	13,148	300
Tasmania	139,119	8,821	134
Total	3,676,302	345,033	4,664

(a) 1964. (b) Included with University of New South Wales. (c) Included with University of Adelaide.

Australian National University. This library consists of two main collections; the former Australian National University Library, founded in 1948, which serves primarily the Institute of Advanced Studies, and the former Canberra University College Library, founded in 1938, which serves primarily the School of General Studies. At the end of 1965 the stock included 70,600 volumes in oriental languages. The collection serving the Institute of Advanced Studies (198,600 volumes) specializes in the fields of the physical and medical sciences, excluding clinical works. The R. G. Menzies Building of the University Library, which was opened by Queen Elizabeth in March 1963, houses the administrative, cataloguing, etc., departments serving the whole university as well as certain research collections of the Institute of Advanced Studies. In the social sciences the library endeavours to provide a good working collection while giving consideration to the holdings of the Commonwealth National Library. It possesses significant collections in anthropology, linguistics, mathematics, and mathematical statistics. The collection serving the School of General Studies (114,800 volumes) has been built up to meet the needs primarily of undergraduates studying arts, economics, law, oriental studies, and science.

University of Sydney. The library consists of the central collection which is known as the Fisher Library, the Law Library, the Medical Branch Library, the Burkitt Library for pre-clinical medicine, and some fifty-two departmental libraries. The University Library, together with departmental libraries and associated libraries in the University grounds, holds a total of more than one million volumes.

The first books were acquired in 1851, and shortly afterwards the library of Sydney College was added. The collection of Nichol D. Stenhouse was acquired in 1878 as the gift of Thomas Walker. In 1885 Thomas Fisher bequeathed the sum of \$60,000, the income from which is used as a book fund. The Fisher Fund was matched in 1961 by establishment of the W. H. and Elizabeth M. Deane Library Fund. Perhaps the finest collection in extent and importance which has been given to the University is that of Sir Charles Nicholson. There have been numerous other benefactions, among which may be mentioned the library of Sir Francis Anderson, the W. H. Deane collection of books and manuscripts and the Dalley-Scarlett music library. In 1961 the University acquired the English literature collection of the late Hugh Macdonald, and the late Professor J. Stewart's library, an outstanding collection on archaeology and numismatics, was acquired in 1963. The Sydney University Library has an extensive collection of mediaeval manuscripts and early printed books.

University of New South Wales. The libraries in this university consist of the Central Library and a Bio-medical Library at Kensington. There is also a library at Wollongong University College. The Broadway campus is serviced by the Sydney Technical College Library, where about 20,000 books from the University's library are placed. Service to the university division at Broken Hill is also provided by the Department of Technical Education. In December 1965 the university had 283,321 volumes in its libraries and in Department of Technical Education libraries. This figure is less than the 1964 figure because it does not include volumes at the University of Newcastle which was then affiliated with this institution.

University of New England. The library was founded in 1938, when the New England University College was established. Sir William Dixon was its first benefactor. The library, which contains 135,000 bound volumes, is adding to its collection at the rate of 20,000 volumes a year. It receives about 3,500 current periodicals annually. It is housed in a three-storied, air-conditioned building, which also makes provision for a bindery and photographic and archives division. A further wing is to be built later to house a library of post-graduate and research volumes which, at present, are on the library's main shelves. The library has its own training officer and conducts formal courses in librarianship.

University of Melbourne. Early in 1854 the first allocation for books was made, but the library was housed in temporary quarters until 1959. The W. L. Baillieu Trust made available the first instalments of a \$200,000 gift for building purposes, which have been followed by subsequent gifts and substantial grants from the Commonwealth and State Governments, and a new building was occupied at the beginning of 1959, the first in the University to be designed specifically for library purposes. Since 1959 the use of the library has increased fourfold, and during the academic year admissions of readers to the building average 8,000 a day. The resources of the library are also used extensively on inter-library loan by industries and other organizations throughout Australia. The University Library, including thirteen branch libraries in various departments, is administered from the centrally situated Baillieu Library. The large medical branch library is specially rich in periodicals.

Monash University. The library started to acquire books in 1960 and subscribes to some 4,300 journals. It has been decided that the library organization will develop into four large units—the main library, a bio-medical library, a law library, and a library for the physical sciences and technology. The physical sciences and technology library has been named the Hargrave Library and was opened in December 1962. The main library, catering mainly for the humanities, was occupied in November 1963. The bio-medical library was occupied in 1966.

University of Queensland. The library was founded in 1911. The main library is in its own building in the University and there are a considerable number of departmental libraries. Among the more important possessions of the library are its large holdings of periodicals, its geology collection, and its material relating to the history, development and culture of the countries surrounding the Pacific Ocean. Tropical aspects of agriculture and veterinary science are also emphasized.

University of Adelaide. The main library is the Barr Smith Library which commemorates its first benefactor, Robert Barr Smith, who, with members of his family in and after 1892, gave the university over \$100,000 for the library. Seats are provided for 1,000 readers, including 270 in the main reading room. There are branch libraries for medicine, law and music. The South Australian branches of the Australian Medical Association, the Australian Physiotherapy Association and the Australian Dental Association make annual contributions towards the maintenance of the medical library in return for borrowing privileges for their members. The Waite Agricultural Research Institute has a separately administered library of about 20,000 publications in agriculture. Total holdings of the university libraries at the end of 1965 were 395,000 volumes. Some 13,500 serial titles are received.

University of Western Australia. The first full-time library staff was appointed in 1927. Provision for a permanent library building was not possible when the university moved to its present site, and space and facilities were inadequate for many years. A new four-storey building was completed at the end of 1963. The building provides facilities for microfilm readers, type-writing booths and photo-copying facilities. The University Library developed very slowly in the early years, but recently has been adding about 14,000 volumes a year to its stock. In addition to the main library there are a number of departmental libraries of which the more important are engineering, agriculture, pre-clinical, and law. There is also a medical library, in accommodation provided by the Royal Perth Hospital, for the use of the medical school.

University of Tasmania. Although this library was founded in 1893, a full-time librarian was appointed for the first time at the end of 1945. The library receives currently about 3,800 periodicals. The University Library also collects private and business archives and it has some important classical manuscripts as well as a collection of early printed books.

Children's libraries and school libraries

New South Wales. Children's libraries are being developed as departments of municipal and shire libraries. The Education Department maintains a school library service for the fostering of State school libraries, which are maintained partly by parents' and citizens' associations and partly by departmental subsidy. Secondary and central schools, and an increasing number of primary schools, have teacher librarians.

Victoria. Under the auspices of the Free Library Service Board 120 municipal children's libraries have been, or are being, established as part of the library services provided by the councils concerned. All these libraries provide comprehensive modern children's book collections which are constantly being augmented. An annual grant of \$10,000, which is additional to the ordinary annual municipal library grant, is provided to assist these libraries. In addition, twelve independently controlled children's libraries shared in this grant in 1965.

The Education Department is making provision for the building of library rooms in new schools. Where accommodation is available in existing schools, library furniture is provided free of cost to the schools and the Government subsidizes the purchase of books. In June 1965, 515 schools had central libraries. A scheme of circulating libraries for small schools, particularly in remote areas, has been operating for some years. One hundred and forty schools benefited from this scheme in 1965. Since that date the scheme has been varied and books are no longer circulated, but individual schools receive books on a non-circulatory basis. The Education Department has a library service officer with a small staff to advise and assist schools in the establishment and organization of libraries. A one-year course for the training of teacher-librarians was established at Melbourne Teachers' College in 1955. Approximately twenty-five teachers are trained each year.

Queensland. The Library Board of Queensland stresses to local bodies the importance of providing adequate library services for children. There are in Queensland 121 libraries free to children, of which thirteen are conducted by the Brisbane City Council. The children's libraries at Rockhampton, Toowoomba and Townsville are particularly active. Country children who are not catered for locally may borrow from the Country Extension Service which possesses a separate children's collection. The purchase of books for State school libraries in Queensland is financed by school committees and parents' associations, with a subsidy from the Department of Education on a \$1 for \$1 basis. Trainees at the Teachers' Colleges are instructed in school library organization and management.

South Australia. A children's library of 36,000 volumes is used by school classes and individual children living in the metropolitan area. In 1964-65, 234,800 books were lent. There is a large collection of historical children's books assembled for the use of research workers. In August 1957 a youth lending service was opened for young people from thirteen to eighteen years of age. It has a stock of 14,900 volumes.

Western Australia. The Education Department provides library services, issues of books and subsidies on library books to schools. The Library Services Branch of the Department provides advisory services to assist schools in all aspects of library organization and service. It also relieves schools of the professional and routine tasks of book preparation by providing a central cataloguing service for both new books and those previously uncatalogued in school libraries, a central processing service to cover books in plastic and prepare them for use, and a library book repair and binding service. Book selection in schools is assisted by a Model Library and by lists of recommended books.

The Teachers' Colleges provide courses in school library organization and service. At the Perth Technical College part-time courses are provided on the syllabus for the examinations of the Library Association of Australia and are attended by many school librarians. The proposed Western Australian Institute of Technology is planned to have a large library to serve students and staff. The Perth Technical College and technical schools are equipped with libraries, and an allocation of funds is provided annually to each school and college department for the purchase of books and periodicals. Books for technical schools other than Perth Technical College are centrally ordered, catalogued and processed by the Library Services Branch.

All high schools are provided with library accommodation and furniture. New high schools opened in 1965 and 1966 have been provided with a main library, reading room, private study room, and librarian's office. High school libraries are staffed by one or two trained teacher-librarians according to the size of the school. New high schools are issued with books to a value of \$1,000 in each of their first three years. All high schools receive annually an issue of books, as well as being entitled to a subsidy for the purchase of library books. A number of primary schools have organized school libraries in rooms which have become available, or in premises provided by the Parents' and Citizens' Associations. Annual issues of books are made to all primary schools, varying according to the size of the school, and a subsidy is provided for the purchase of library books. The Charles Hadley Travelling Library provides 400 boxes of books which are circulated to all small schools, mission schools and special classes. Children who are unable to attend school, mainly those in isolated areas, are provided with books from the Correspondence School's Library.

Tasmania. The Lady Clark Memorial Children's Libraries, with headquarters at the State Library, Hobart, aim at serving all children in Tasmania. At 30 June 1965, 163 children's libraries and depots had been established.

The Education Department provides library quarters in all high schools and in some of the larger primary schools. The purchase of books is financed by parents' associations and by departmental subsidies. Teacher-librarians are appointed in high schools. The Schools Library Service issues loan collections of books to schools and gives advice on the setting up of school libraries.

Special libraries

Before the 1939-45 War the number of special libraries, apart from those maintained by government departments, was small, but during recent years many manufacturing, commercial, research, and other firms, as well as statutory bodies, have found it necessary to establish special libraries to serve their staff. These libraries, which are most numerous in Sydney and Melbourne, are being increasingly administered by trained librarians.

Museums and art galleries

In 1964 an annual collection of statistics on a uniform basis was commenced from Australian museums and art galleries. So far, the collection is essentially exploratory and detailed statistics have not yet been compiled. The following paragraphs provide summarized results of the collection and refer individually to the more important museums and art galleries.

A museum or art gallery is considered to be a building, group of buildings or parts of buildings, managed as a unit and intended predominantly for the permanent display of objects of interest (museum) or objects of art (art galleries) to the general public. Institutions displaying live exhibits are excluded (the more important of these are mentioned on pages 638-9), as are buildings used for temporary displays (exhibitions, commercial galleries exhibiting only for sale) without a permanent stock of exhibits; permanent exhibitions which are ancillary to other activities, such as exhibits at council chambers, libraries, hotels, and other commercial enterprises providing services to tourists and sightseers; collections which are not readily accessible to the general public, such as university collections for the use of students and research workers; and historic homes, etc. not specifically intended for the permanent display of objects of interest (i.e. where the building itself and its normal fittings are essentially on display).

Museums and art galleries, 1965

The following table sets out summary information in respect of the institutions in Australia which have been identified in 1965 as museums and art galleries (branches of museums and art galleries are not shown separately).

MUSEUMS AND ART GALLERIES: SUMMARY, 1965

(Number)

	Major institutions			Other institutions			All institutions
	Museums	Art galleries	Mixed institutions	Museums	Art galleries	Mixed institutions	
States—							
New South Wales	3	1	..	3	2	1	10
Victoria	2	1	..	4	7	..	14
Queensland	1	1	..	..	3	..	5
South Australia	1	1	..	4	1	..	7
Western Australia	1	1	..	1	1	..	4
Tasmania . . . . .	..	..	2	..	..	..	2
Northern Territory . . . . .	..	..	..	1	..	..	1
Australian Capital Territory	1	..	1	..	..	..	2
Ownership—							
Commonwealth Government	1	..	1	..	..	..	2
State Governments	8	5	1	2	..	1	17
Municipal authorities . . . . .	..	..	1	5	7	..	13
Private trusts . . . . .	..	..	..	1	5	..	6
Universities . . . . .	..	..	..	2	1	..	3
Private . . . . .	..	..	..	3	1	..	4
Display area—							
Under 1,000 sq. ft. . . . .	..	..	..	2	1	..	3
1,000 and under 5,000 sq. ft. . . . .	..	..	..	9	10	..	19
5,000 and under 10,000 sq. ft.	1	2	1	2	2	1	9
10,000 and under 20,000 sq. ft.	1	..	..	..	1	..	2
20,000 sq. ft. and over	7	3	2	..	..	..	12
Estimated attendance during year—							
Under 10,000 . . . . .	..	..	..	8	6	..	14
10,000 and under 20,000 . . . . .	..	..	..	3	1	..	4
20,000 and under 50,000	1	..	..	2	5	..	8
50,000 and over	7	4	2	..	..	..	13
Not available	1	1	1	..	2	1	6
Staff—							
Under 5 . . . . .	..	..	..	9	10	..	19
5 to 9 . . . . .	..	..	..	4	4	1	9
10 to 19	1	2	2	..	..	..	5
20 and over	8	3	1	..	..	..	12
Expenditure—							
Under \$2,000 . . . . .	..	..	..	3	5	..	8
\$2,000 and \$10,000 . . . . .	..	..	..	5	3	..	8
\$10,000 and under \$20,000 . . . . .	..	..	..	..	2	..	2
\$20,000 and under \$100,000	2	3	3	1	3	..	12
\$100,000 and under \$200,000	3	1	..	..	..	..	4
\$200,000 and over	3	1	..	..	..	..	4
Not available	1	..	..	4	1	1	7
Total museums and art galleries	9	5	3	13	14	1	45

Major institutions

Some detail is provided here in respect of the seventeen institutions identified in 1965 as major because of the size of their display, the value of their exhibits, their popularity, and the extent of the information and investigation services which they provide.

Australian Capital Territory

The Australian War Memorial, Canberra. The Memorial comprises the national collection of war relics and the building in which these are preserved. The building was opened in 1941. The memorial is owned by the Commonwealth Government and is administered by a director responsible to a board of twelve trustees. There is a collection of 4,000 art works and a museum collection of more than 40,000 war relics, the gathering of which began on the battlefields of the 1914–18 War and was continued during the subsequent campaigns in which Australian forces have participated. The collection has been enhanced by gifts of relics from the Governments of Great Britain, the sister dominions, and of allied countries, and also by presentations made by ex-servicemen and relatives of those who died. The collection consists of items such as tanks, aeroplanes, submarines, field-guns and boats, and the widest possible range of war trophies down to the smallest items, each relic dependent for its value on its historical background. The works of art, all by Australian artists, depict battle scenes, individual officers and men, etc., and include oil and water colour paintings, drawings, statuary, bronzes, dioramas, and mosaics. There is also a library, which is described on page 626. The area used for display is 80,300 square feet. Total

attendance during 1964-65 was 510,736 with an average attendance of 1,139 on weekdays, 1,796 on Saturdays and 2,306 on Sundays. Staff numbered sixty-nine. Expenditure (excluding expenditure on the maintenance of the building and environs) was \$341,350, and the major items of receipt were Commonwealth Government contributions (\$251,578) and the sale of publications, etc. (\$51,286).

The Australian Institute of Anatomy, Canberra. The Institute is described in the chapter Public Health, page 569. The museum has a display area of 9,048 square feet. It contains displays of biological and anatomical aspects of man and the anatomy of Australian animals. A display of Aboriginal and Melanesian artefacts from the National Ethnographic Collections is temporarily housed in the Institute. Estimated attendance in 1965 was 170,000. The museum has a staff of twelve. Museum expenditure, wholly met by the Commonwealth Government, was about \$32,000 for administration and other current expenditure, and \$7,400 for maintenance of building, etc. in 1965.

New South Wales

The Australian Museum, Sydney. Founded in 1836, this is the oldest museum in Australia. It is administered by a director and a board of twenty-five trustees as a Government Department attached to the New South Wales Department of Education, with a staff of seventy-six. It has fine collections of all groups of animal, including insect fossils as well as mineral and ethnological collections, particularly in relation to Australia and the Pacific. There is a valuable library which in 1964-65 comprised 34,748 bound volumes. Its staff, during 1964-65, spent 620 man-days on field work in Australia and New Guinea, engaged in the collection of zoological, geological and anthropological specimens and a study of animal habits and environments. Total attendance in 1964-65 was 358,045 with an average daily attendance of 885 on weekdays, 1,058 on Saturdays, and 1,385 on Sundays. Twenty-two educational course lectures and 520 lectures to school parties were provided, as well as 62 other lectures, film sessions, etc., with total attendance at these of nearly 34,647. The total area available for display is 51,874 square feet. Current expenditure (excluding amounts spent by the Public Works Department on maintenance, major additions and alterations), amounted to \$254,280.

Museum of Applied Arts and Sciences, Sydney. This museum, with branches at Bathurst, Goulburn and Broken Hill, New South Wales, is owned by the New South Wales Government, and administered by a director and a board of seven trustees appointed by the Governor of New South Wales. The museum specializes in applied arts (ceramics, glass, oriental arts, costumes, musical instruments, furniture, etc.), applied science and technology (engineering, transport, textiles, electronics, etc.), and among its special features are a Watt beam engine of 1785, No. 1 New South Wales locomotive, Lawrence Hargrave models, and a planetarium. Total display area is 20,700 square feet. The museum's library contains about 7,500 books and periodicals. Attendances in 1965 were Sydney, 201,112, Bathurst, 15,810, and Goulburn (estimated), 18,000. The museum had, in 1965, a staff of forty-seven. During 1965, 101 man-days were spent on field work in New South Wales. Botanical material for phytochemical studies was collected and field experiments were undertaken to determine growth rates, oil yields and fertilizer responses in oil-bearing species.

Geological and Mining Museum, Sydney. This museum is administered as a branch of the Department of Mines by a curator under the control of the Government Geologist. This museum is the only one in Australia devoted solely to geology and mining. The display contains a unique collection of ores and economic minerals from New South Wales with material from the other States and from overseas for comparison. Its most important functions are the identification of mineral and rock specimens, several thousands of which are received annually, and the supply of some 20,000 to 30,000 specimens free of charge to schools. The museum has 8,500 square feet of display area and a staff of thirteen. Total attendance during 1965 was 24,637 with an average attendance of forty on weekdays, 114 on Saturdays and 158 on Sundays. During the year ten man-days were spent on fieldwork in the collection of bulk specimen material for distribution to schools and palaeontological specimens for research. Expenditure (excluding new works and maintenance) amounted to \$30,940 in 1965.

Art Gallery of New South Wales, Sydney. The Gallery originated in the Academy of Art founded in 1871. It is administered by a director and secretary under a board of thirteen trustees responsible to the New South Wales Minister for Education. The gallery has 7,789 exhibits, including 1,641 oils and 157 pieces of sculpture. Australian art in all aspects (except early colonial and native) and modern European painting and sculpture are featured. An Aboriginal art collection includes a unique set of large Melville Island graveposts. There are display areas of 40,000 square feet and a library with 4,292 books. Assistance is provided to governments and private organizations in the design of books, coins, notes, etc., the preparation and judging of exhibitions, and in the supply of research material and information. Total attendance in 1965 was estimated at 312,000. Staff numbered thirty-one. Apart from payment of wages and salary and maintenance of buildings, the State Government in 1965 contributed \$20,000 to the Gallery. Other income came mainly from the sale of publications, etc. (\$12,393).

Victoria

National Museum of Victoria, Melbourne. The museum was founded in 1854. It is State-owned and administered by a director and board of seven trustees. It houses substantial collections in the fields of zoology, geology and anthropology. There is a small branch at Tidal River, Victoria. The museum has display areas of 40,738 square feet and a library. Fieldwork involving 67 man-days was undertaken in 1964-65 for the collection of specimens and research. Two hundred and twenty-five lectures were provided to school parties with a total attendance of 9,011. Staff numbered fifty-four. Total expenditure by and on the museum in 1964-65 amounted to \$163,222.

Institute of Applied Science of Victoria, Melbourne. The Institute was founded in 1870. It is State-owned and administered by a director and board of seven trustees. Its collections are concerned with aspects of application of all science subjects, but with special emphasis on transport, astronomy, public health, arms, agriculture and electronics. The total area available for display is 26,000 square feet. Its library contains about 3,000 books and periodicals. A planetarium was opened in December 1965. Total attendance during 1964-65 was estimated at 371,670. The Institute provided 108 educational course lectures and 103 lectures to school parties. Total attendance at these and other lectures amounted to about 7,141. Staff numbered sixty-five. Expenditure during 1964-65 (including works and maintenance) amounted to \$138,732.

National Gallery of Victoria, Melbourne. The State-owned gallery is administered by a director and board of seven trustees. Its large collections of over 20,000 items feature paintings by Rembrandt, Tiepolo and the Flemish primitives, Durer engravings, Blake drawings, and English 18th century furniture. Attendance during 1964-65 was estimated at 371,670. The gallery has a display area of 44,000 square feet. During 1964-65 there were 465 art school educational course lectures, seventy-one guide lectures to adult parties, and 325 guide lectures to school parties with a total attendance at these lectures of 31,576. Staff numbered forty-four. Excluding new works and maintenance, expenditure in 1964-65 amounted to \$297,356 and \$80,000 was spent by the Felton Bequest Committee on the acquisition of new exhibits.

Queensland

Queensland Museum, Brisbane. The Museum, founded in 1855, is the State museum of natural science. It is administered by a Director as a sub-department of the Queensland Department of Education. The collections are in the fields of the natural sciences, ethnology and history and include extensive collections of fossil vertebrates. The museum has a display area of 27,700 square feet. Field work involving seventy-five man-days was undertaken in 1964-65 for the collection of zoological, geological and anthropological material for research, reference and display purposes. Its extensive library contained about 36,000 volumes of books and periodicals. Total attendance in 1964-65 was estimated at 119,800. Twenty school holiday film programmes and forty-nine guide lectures to school parties were provided as well as seventeen other lectures, and the total attendance amounted to 7,857. Staff numbered twenty-nine. Expenditure (excluding maintenance of buildings) amounted to \$90,344.

Queensland Art Gallery, Brisbane. This State gallery was established in 1895. It is administered by a director and board of thirteen trustees. The gallery especially features Australian art of all periods, British modern art, French sculpture, and French paintings from the Rubin collection. The Art Gallery has a display area of 6,600 square feet and 1,749 display items, including 540 oils. Its library contains 892 items, and special attention is given to the collection of books and periodicals on Australian art of any period and to books and periodicals which have particular reference to works in the collection. There were forty art school and educational course lectures in 1964-65, and attendances at these and other lectures, film sessions, etc. was more than 2,000. Staff numbered fifteen. Its expenditure (including maintenance) was \$64,024. It had no bequest income.

South Australia

The South Australian Museum, Adelaide. The museum forms a part of the South Australian Department of Public Service and is administered by a director and board of five trustees. It features natural science and anthropological collections. The latter refer to the Australasian and Pacific regions and include an outstanding collection of Aboriginal artefacts. During 1964-65, 780 man-days were spent in field work in South Australia to supplement the State collections of fauna and flora and to assist the projects of the research staff. The museum's area available for display is 39,980 square feet, and it has a library of more than 23,000 books and periodicals. Total attendance during 1964-65 was estimated at 190,000 with an average attendance of 175 on weekdays, 540 on Saturdays and 810 on Sundays. There were fifty-four lectures to school parties and fifteen other lectures, sessions, etc., with a total attendance of 2,140. The museum had, in 1964-65, a staff of sixty-one. Total expenditure in 1964-65 (including new works and maintenance) was \$229,428.

National Gallery of South Australia, Adelaide. The gallery originated in 1881. It is State-owned and administered by a director and board of seven trustees. Apart from the usual art gallery collections, devoted chiefly to British and Australian works, it features a large collection of prints containing examples from European, British, Oriental, and Australian schools and a numismatic collection which is widely regarded as the finest in Australia. It also contains the South Australian Historical collection and a small collection of weapons. It has a display area of 28,178 square feet and a library. In June 1965 it had 55,805 exhibits, including more than 2,000 oils and watercolours, and nearly 12,000 engravings and prints. Six loan exhibitions were conducted in conjunction with other Australian art galleries in 1964-65, and there were eighty guide lectures to school parties and thirty-one other guide lectures, film sessions, etc., with a total attendance of 4,925. Staff numbered twenty-five. Total expenditure (including maintenance) was \$138,058.

Western Australia

Western Australian Museum, Perth. The museum was established in 1895. It is administered by a director and board of five trustees appointed by the Western Australian Government. The zoological collections cover all vertebrate and most invertebrate fields, particularly marine. There are collections relating to vertebrate palaeontology and meteorites, fossil invertebrates, and some fossil plants. There are extensive collections of Aboriginal artefacts and European arms and armour. In 1964-65 the area available for display totalled 16,750 square feet. During that year 340 man-days were spent on field work in collecting zoological, palaeontological and anthropological material in many parts of the State. The library contained 1,860 books and periodicals. Total attendance was 140,290 in 1964-65 with an average daily attendance of 392 on weekdays, 394 on Saturdays and 336 on Sundays. There were 320 guide lectures to school parties in 1964-65 with a total attendance of 14,000, and in addition 41,000 children visited the Museum's Children's Centre during vacation periods for supervised activities. No other lectures were given at the Museum, but the staff participated in adult education programmes outside the Museum and in university teaching. Staff numbered thirty-seven. Total expenditure (including works and maintenance) amounted in 1964-65 to \$146,196, which was met mainly from State funds, but also from trust funds from private persons for specific purposes.

The Western Australian Art Gallery, Perth. The gallery was established in 1895 and is administered by a director and government-appointed board of five trustees. It features especially collections of Australian paintings, drawings, ceramics and sculpture, a fine collection of Australian contemporary art, and a major Henry Moore sculpture. It has collections of coins and of Western Australian stamps. Altogether there are 3,387 items. The gallery has a library with some 950 books and periodicals and a display area of 9,000 square feet. Total attendance in 1964-65 was 120,348 with an average attendance of 294 on week days, 491 on Saturdays and 347 on Sundays. There were ten guide lectures to school parties and twenty-one other lectures, film sessions, etc., with a total attendance of 2,551. Staff numbered eighteen. Expenditure (including maintenance) in 1964-65 was \$82,122.

Tasmania

Tasmanian Museum and Art Gallery, Hobart. Opened in 1887, the Tasmanian Museum and Art Gallery is State-owned and administered by a board of trustees. It has a branch at Zechan, namely The West Coast Pioneer's Memorial Museum. The museum part contains zoological, anthropological and geological displays relating to Tasmania. The art displays contain an excellent holding of Tasmanian historical works. The area available for display is 52,000 square feet. In 1964-65 there was a staff of twenty-five. Total expenditure (including expenditure on new extensions) amounted to \$167,880.

Queen Victoria Museum and Art Gallery, Launceston. This institution, opened in 1891, is owned and administered by the Launceston City Council through a director and a sub-committee of aldermen. It has a branch at Cradle Mountain. Attention is concentrated on collections relating to the natural, biological and historical environment of Tasmania, featuring Tasmanian fauna, Aboriginal relics and historical material. The arts associated with Tasmania are represented by an excellent collection of early colonial period painting and also by a fine collection of costumes, lace and ceramics. Total display area amounts to 26,456 square feet and there is a library with some 2,000 books. In 1964-65, 141 man-days were spent on fieldwork in geological, zoological and anthropological activities. Attendance was 60,133 with an average attendance of 173 on weekdays and Saturdays and 112 on Sundays. There were seventy-one educational course lectures and twenty-two other lectures, with an estimated total attendance of 3,200. There was a staff of sixteen. The Queen Victoria Museum and Art Gallery received \$14,000 in 1964-65 from the State Government, but the remainder out of a total expenditure of \$50,064 was met, in the main, by the municipality.

Other museums and art galleries

A short description of some of the twenty-eight remaining museums and art galleries is given in the following paragraphs. The institutions are grouped into those owned by the States, by municipalities and private trusts, by universities, and by private persons.

State-owned institutions. The Dixon and Mitchell Libraries (sections of the Public Library of New South Wales) have galleries in which paintings, drawings, engravings, photographs, coins, and postage stamps, all related to Australian and south-west Pacific history, are exhibited. The main area of display comprises 7,051 square feet. Only a fraction of the many thousands of items can be shown. There is a geological museum, maintained by the Victorian State Mines Department, with a comprehensive collection of geological specimens. In South Australia there is a small museum of local and tourist interest—the Old Government House, Belair, displaying furniture, etc. of the colonial era.

Municipal and private trust institutions. In 1965 there were twelve institutions owned by various non-metropolitan municipalities throughout Australia. These range from the Mildura Art Centre with expenditure of more than \$60,000 in 1965 to the Broken Hill Art Gallery, a part of the Broken Hill Technical College, where local artists' pictures of mining activities are exhibited amongst others. Similar institutions are often maintained in major provincial cities by private trusts. These and the municipal institutions often exhibit artistic, historical and other items of special local interest, and as a rule there are associated with them various local societies devoted to the exploration and encouragement of the arts, local history and the like. Thus the Lionel Lindsay Art Gallery and Library at Toowoomba, Queensland, is administered by a board of trustees, originally appointed in 1959 by deed of trust.

University institutions. Most university collections, some of them comprehensive and containing unique material, are reserved essentially for the use of students and research workers, and are therefore not included as museums or art galleries. However, the John Darnell Art Gallery of the University of Queensland, originating from a bequest in 1930, and the Macleay Museum of Natural History at the University of Sydney, stemming from a gift to the university in 1888, and the Nicholson Museum of Antiquities at the University of Sydney are open to the public.

Private museums and art galleries. Only four establishments of this nature combine the sale of objects of art or interest with permanent displays and are therefore included here as museums or art galleries; three of them are in South Australia and one in the Northern Territory.

Botanical and zoological gardens

In addition to the zoological gardens referred to in the following paragraphs there are numerous privately owned zoos and sanctuaries, many of them at tourist resorts, which maintain collections of Australian flora and fauna. There are also various national parks, forests, reserves, etc., dedicated for public use, which are preserved largely in their natural condition.

New South Wales

The Sydney Botanic Gardens are situated on the shores of Farm Cove, Sydney Harbour, close to the heart of the city and on the site of the first farm established in 1788 by Governor Phillip. Now occupying sixty-six acres, they contain a large and varied collection of flowering plants, shrubs and trees as well as hothouses of orchids and ferns.

The Zoological Gardens at Taronga Park, on the northern side of Sydney Harbour, were opened in 1916. The area is about seventy acres. The natural formation has been retained as far as practicable, with the object of displaying the animals in natural surroundings, and an aquarium has been built within the gardens. In 1964–65 admissions to the grounds were 923,115 and to the aquarium 305,983. The receipts of the zoological department of the Taronga Park Trust amounted to \$420,056 in 1964–65, excluding an annual State grant of \$6,500, and expenditure amounted to \$428,768. Exhibits at 30 June 1965 comprised 1,299 mammals, 2,919 birds, 256 reptiles, and 1,048 fish.

Victoria

The main botanical gardens in the State are the Royal Botanic Gardens, an area of eighty-eight acres within one mile of the centre of the City of Melbourne and containing over 12,000 species of plants, of which there are some 30,000 individual specimens. Many species of native birds breed on islands in lakes within the gardens.

The Zoological Gardens are situated in Royal Park and contain a wide selection of animals, birds and reptiles. A wild life sanctuary is also maintained at Healesville and contains specimens of indigenous fauna.

Queensland

Botanical gardens have been established in Brisbane and in several other cities. The Brisbane Botanic Gardens were established in 1855 by the Government of New South Wales. In 1925 the Queensland Government transferred them to the Brisbane City Council. They occupy approximately forty-six acres on the banks of the Brisbane River in the central city area and are noted for their collections of palms, tropical trees and shrubs, and succulents; they contain over 7,500 plants.

South Australia

The Botanic Garden established in 1855, was opened to the public in 1857. It contains forty-five acres of tropical and sub-tropical trees, shrubs and plants, a large range of glasshouses, and a rockery with cacti and succulents. Adjoining is the Botanic Park of seventy-five acres which is treated as an arboretum.

The Zoological Gardens, opened in 1883, have an area of approximately nineteen acres and contain a fine collection of animals, reptiles and birds. There were 312,300 visitors in 1964-65.

Western Australia

A botanic garden for the native plants of Western Australia was officially inaugurated in March 1963, and planting of the garden began in May 1963. It was officially opened in October 1965. The site of twenty-five acres selected for garden development during the first five years is in King's Park, a reserve of almost 1,000 acres close to the centre of Perth. An arboretum of thirty-six acres for the collection of native trees was founded in June 1962. It is now almost fully planted, and, with the exception of some rare mallees, nearly all trees native to the southern part of the State are represented.

The Zoological Gardens, which were opened in 1898 at South Perth, have an area of forty-six acres and are under the control of the Acclimatisation Committee. Animals, birds and reptiles are exhibited. During the year 1964-65, 134,541 adults and 127,324 children visited the zoo.

Tasmania

The Hobart Botanical Gardens adjoining Government House on the Queen's Domain contain a fine collection of exotic trees and shrubs. They are controlled by a Board appointed by the State Government, which supports the gardens by annual grants.

There is no zoo in Tasmania, but a small collection of animals and birds is maintained by the Launceston City Council at the City Park.

Northern Territory

The Darwin Botanical Gardens were established in 1873 and were planted with imported exotic plants and trees. The gardens now occupy eighty acres and feature tropical plants of both native and overseas origin. They are controlled by the Darwin City Council.

Book publishing

Australian book publishing

Some statistics relating to Australian book publishing are compiled by the National Library of Australia as part of its bibliographical responsibilities (see page 624). Through the deposit provisions of the *Copyright Act* 1912-1950, its overseas collection agents and its own efforts, the library receives practically all Australian publications, although not necessarily in the year of publication. Because the statistics compiled and shown hereunder are classified according to the year of publication, the figures are subject to revision as publications not yet received in the National Library come to hand.

For books published in 1961 and thereafter, the method of counting conforms with international practice. Each title is counted as one unit. The figures cover all non-periodical publications (i.e. those published at irregular intervals or regularly at intervals of one year or longer) published in Australia. They refer to all publications of five pages or more and include pamphlets, new translations and re-editions. They include government publications, educational textbooks, university theses, etc., but exclude publications not available to the general public, advertising material, publications of transitory interest, off-prints, musical works, children's picture books, maps and charts.

Number of publications

The following table shows the number of books, etc., published in Australia during the years 1961 to 1965 received by the National Library to the end of 1965.

**NUMBER OF PUBLICATIONS RECEIVED BY THE NATIONAL LIBRARY
AUSTRALIA, 1961 TO 1965**

Received by the National Library to the end of—	Published during—				
	1961	1962	1963	1964	1965
1961	1,840	...	..	..
1962	2,848	1,793	..	..
1963	2,963	2,501	1,416	..	
1964	2,993	2,675	2,167	1,385	
1965	3,013	2,700	2,312	1,934	2,039

The next table shows the 1963, 1964 and 1965 publications received up to the end of 1965, classified by subject matter.

**NUMBER OF 1963, 1964 AND 1965 PUBLICATIONS RECEIVED BY THE
NATIONAL LIBRARY, BY SUBJECT(a): AUSTRALIA, TO 1965**

Subject	Published during—		
	1963	1964	1965
Bibliography, libraries, general	61	38	29
Philosophy, psychology	17	17	19
Religion	79	70	52
Social sciences	708	698	789
Philology	33	30	36
Science	223	190	179
Technology, business	517	384	357
Art, amusement	110	106	75
Literature	323	253	297
Australian poetry	47	33	23
Australian drama	4	22	4
Australian fiction	180	153	204
Australian essays	4	3	2
Australian humour and miscellany	10	3	12
Criticisms, anthologies, school editions	45	20	35
Other literature	33	19	17
Travel, biography, history	241	148	206
Total	2,312	1,934	2,039

(a) The classification is based on the divisions of the Dewey Decimal Classification.

Commonwealth Literary Fund

In 1908 the Commonwealth Government, under Alfred Deakin, first established the Commonwealth Literary Fund. The Fund was entirely a compassionate one devoted to literary pensions for aged or infirm authors, for the families of literary men who died in poverty, and for writers who were unable for financial reasons to continue their activities.

In 1939, in an endeavour to encourage the development of Australian literature and to foster appreciation of it, the Commonwealth Government greatly enlarged the scope of the Fund. The Fund now awards fellowships each year, assists in the publication of manuscripts of high literary merit, makes annual grants for lectures in Australian literature, and awards pensions to writers who have achieved a nation-wide reputation for their work in the field of creative literature. The fellowships are awarded each year to writers who have proved their capacity in the field of creative literature, to enable them to devote their time to working on a literary project they specify. A fellowship carries a maximum value of \$4,000 a year. The Fund does not seek out people on whom to bestow fellowships, but considers only those who submit applications.

The Fund also assists in the publication of manuscripts which have outstanding literary merit, but which, in the opinion of publishers, may constitute a commercial risk. This assistance takes the form of a guarantee of assistance to the publisher. The Fund does not itself enter the field of publishing, nor does it make outright grants to authors to enable them to arrange publication. Since 1940 annual grants for special lectures in Australian literature have been made to all universities. In 1956 the Fund initiated a scheme of lectures to the general public and to schools, mainly in country areas, with the co-operation of State adult education authorities and Education Departments. Annual grants are now made to the States for this purpose. The Fund also assists certain literary magazines of long standing and recognized literary value.

The Fund is administered by a Committee consisting of one representative of each of the three main political parties in the Parliament, the Chairman being nominated by the Prime Minister. The Committee is advised on all literary matters by an Advisory Board of six persons with literary qualifications.

Literature Censorship Board

In 1937 the Commonwealth Government introduced legislation to provide for a Literature Censorship Board to advise the Minister for Customs and Excise on imported literature. At the same time an Appeal Censor was appointed to afford appellants an avenue of appeal which did not make expensive court proceedings necessary. The Appeal Censor was replaced by an Appeal Board in 1960. The Literature Censorship Board consists of a Chairman, a Deputy Chairman, and four other members, while the Appeal Board is made up of a Chairman and two other members.

The Boards were set up to deal with that part of the problem which provides the greatest amount of controversy—restriction on books which have a real place in the field of literature. In practice, no imported publication having literary merit is prohibited without prior reference to the Literature Censorship Board. Should the Minister decide to prohibit the importation of a book on the recommendation of the Board, an appeal against the decision may be made for reference to the Literature Censorship Appeal Board. A decision to prohibit the importation of a book may be challenged through the normal processes of law. Control of indigenous matter comes under the jurisdiction of the State Governments.

Film production

Australian film production

Australia was one of the pioneers in the history of film-making, a short story film, *John Vane, Bushranger*, having been made in 1904, only a year after America's *The Great Train Robbery*, which is generally considered to be the first genuine story-film. It has been claimed that *The Kelly Gang*, made in 1905–6, was the first full-length feature film produced in the world. Following the outbreak of the 1914–18 War a series of short patriotic films were produced. In 1917 the first of a successful series of rural comedies was made, featuring a family called the Hayseeds. In the same year *The Kelly Gang* was remade and the first film version of *For the Term of his Natural Life* appeared. A first film version of C. J. Dennis's *The Sentimental Bloke* was made in 1919.

The year 1920 was notable for a number of productions with an authentic Australian flavour: *On our Selection*, a first version of *Robbery Under Arms*, another remake of *The Kelly Gang*, and C. J. Dennis's *Ginger Mick*. Production continued at about the same level until the coming of sound in 1928. Altogether, approximately 255 theatrical films were produced by Australian units in the silent period (1900–1930). Lack of equipment hampered the commencement of production of sound films in Australia, but during the 1930's nearly 60 sound films were produced.

During the 1939–45 War, commercial film production combined with the Commonwealth Government in making films. Since the war, a number of British and American companies have made films in Australia. Altogether, about 129 feature films were produced in Australia between 1930 and 1965.

Australian National Film Board

The Australian National Film Board was inaugurated in April 1945, on the recommendation of a Commonwealth Government inter-departmental committee. It was attached, for administrative purposes, to the Department of Information. With the abolition of that Department in March 1950, administration of the Board was transferred to the News and Information Bureau, Department of the Interior.

In November 1950 the Board was reconstituted as an advisory body to the Minister for the Interior on matters concerned with the production, acquisition and distribution of films required by Commonwealth departments for use within Australia on important matters of national interest and welfare, such as school and adult education, rehabilitation, social development,

international understanding, trade and tourist expansion, and immigration; and for dissemination abroad to expand trade and commerce with other countries, to encourage tourist traffic with Australia, to improve Australia's relations with other countries and, where necessary, to explain Australia's national policies, and to encourage immigration.

The constitution provides for a membership of twelve, with the Director of the News and Information Bureau as chairman and the remainder representative of Commonwealth departments, State government instrumentalities, and organizations interested in the production, distribution or utilization of films for national publicity.

Film Division of the News and Information Bureau

The first Australian Government organization for the production of motion pictures for national information purposes was the Cinema and Photographic Branch of the Department of Commerce, set up in Melbourne in 1920. Early in the 1939-45 War the newly-established Department of Information was made responsible for the operation of the Cinema Branch and for an Official War Photography Unit. When the Australian National Film Board was established in 1945, the Film Division of the Department of Information became the official film production and distribution agency for Commonwealth departments and instrumentalities. In 1950, with the closing down of the Department of Information and the transfer of its functions, the Division became the Film Division of the News and Information Bureau then set up within the Department of the Interior. The Film Division is also known as the Commonwealth Film Unit. Theatrical and television distribution in Australia, and both theatrical and non-theatrical distribution overseas, of all Film Division productions are organized by the Bureau's home office or its overseas representatives. Non-theatrical distribution in Australia is organized through the National Library, Canberra, in co-operation with State film distribution agencies.

Since 1946 the Film Division has produced films for general exhibition, as well as training and special purpose films. In 1964-65 the Film Unit produced 109 reels of new films and thirteen reels of foreign versions of existing films. Prints are distributed to fifty overseas centres. In Britain there is regular distribution through commercial theatres and a large non-theatrical and educational series of circuits. By arrangement with the British Broadcasting Corporation items of topical interest photographed by the Film Division are flown to London for television. In the United States of America there is wide non-theatrical distribution and considerable use of the films by television networks. In Canada an arrangement with the Canadian Film Institute secures placement of films on television and the Australian High Commission handles the films for non-theatrical use. Selected films have been recorded in French, Dutch, German, Italian, Swedish, Russian, Spanish, Japanese, Malay, Thai, and various dialects of Hindustani and Tamil.

In addition to films made on its own initiative, the Film Division produces films under the sponsorship of, or with the co-operation of, Commonwealth departments and many other bodies such as the Australian Road Safety Council, the Snowy Mountains Hydro-electric Authority, the Australian National University, the Australian Broadcasting Commission, the Victorian State Electricity Commission, the National Capital Development Commission, the Atomic Energy Commission, the British Broadcasting Corporation, the Australian National Shipping Line, and the Institute of Aboriginal Studies.

Film censorship

Legislation. The Commonwealth Government's powers over censorship of films extend only to imported films and imported advertising matter and stem from the Customs Act. Under that Act the Customs (Cinematograph Films) Regulations provide for the appointment of a Film Censorship Board whose function is to ensure that films and related advertising material coming within certain defined categories are not admitted into Australia. Under those regulations the Film Censorship Board may pass films in their original form, reject them, or pass them after eliminations have been made. Legislation passed by the State Governments of Victoria, Queensland, Western Australia, and Tasmania names the Commonwealth Film Censorship Board as the censorship authority and vests in it the power to classify films as suitable for general exhibition or not. The State Acts give the Commonwealth Board the authority to censor films made in Australia for commercial exhibition and advertising matter made in Australia.

The Censorship organization comprises a Censorship Board of seven persons and an Appeal Censor, the headquarters being in Sydney. Importers have a right of appeal to the Minister against decisions of the Board and the Appeal Censor.

Thirty-five mm. films for exhibition in motion picture theatres. In 1965, 1,162 films comprising approximately 4½ million feet were censored. This represented approximately 824 hours screening time. Of these films, 351 originated in the United States of America, 349 in the United Kingdom, and 462 in other countries. The principal suppliers among the last mentioned were: U.S.S.R., 87; Italy, 65; France, 42; Greece, 35; Germany, 23; Japan and Switzerland, 21 each. Included in

these figures were 435 full-length feature films which constituted the main theatrical attractions. This was an increase of 13 over imports for 1964. Feature films came from: The United States of America, 144; the United Kingdom, 78; Italy, 53; U.S.S.R., 51; Greece, 34; France, 15; Germany, 14; and Japan, 10. Seventeen feature films were initially rejected and cuts were made from 99. There were sixteen appeals, fifteen against rejections and one against cuts. Two were allowed and fourteen disallowed. Feature films classified as suitable for general exhibition numbered 223, and 212 were not suitable for children. Of the latter, 32 carried the special condition that all advertising should indicate that they were suitable only for adults. These classifications are advisory only and are designed to enable picture-goers and particularly parents to obtain a general idea of the nature of any particular film. In addition to these imported films, 148 35mm. films of 184,729 feet produced in Australia were cleared. These were mainly newsreels and documentaries intended for commercial exhibition or export.

Sixteen mm. films. Excluding those imported for television use, 6,451 16mm. films of approximately 4½ million feet were examined. These were films commercially produced for screening in theatres used by business undertakings for advertising and instructional purposes and for screening in churches, schools and universities, and on home movies. Six were rejected.

Eight mm. and 9 5mm. films. Approximately 76,000 feet of these small dimension type films were examined. One hundred and seven films with an approximate footage of 7,500 feet were rejected.

Television films. In 1965, 11,129 films, predominantly 16mm., of approximately 14½ million feet, for use on television, were censored. The number of films is not a true indication of volume because many of these were of short duration. In terms of screening time the films censored for television amounted to approximately 6,753 hours. On a footage basis the United States of America supplied 79 per cent of the total imports and the United Kingdom 16 per cent. Ninety-four television films were rejected outright and an additional seven were classified as unsuitable for televising. Eliminations were made from 1,082. There were ten appeals, all against rejection, of which four were allowed and six disallowed.

Foreign language films. Countries other than the United Kingdom and the United States of America supplied 462 of the 35mm. films imported for theatrical exhibition, of which 213 were feature films. Generally, the dialogue is in a foreign language with explanatory English captions. A few have an English commentary and in some cases English 'dubbed' dialogue. Of 6,451 16mm. commercial films censored, 1,312 originated from non-English-speaking countries. The chief supplying countries were: Germany, 241; France, 170; Japan, 136; Czechoslovakia, 80; Italy, 74; China, 55; Malaysia, 52; Switzerland, 46; Sweden, 39; U.S.S.R., 38; Holland, 33; and India, 30.

Export of films. The quantity of films exported for the year was approximately 2.5 million feet, consisting mainly of newsreels, advertising films and documentaries. This footage included in many cases several prints of the one film. It also included large quantities of exposed negatives sent overseas for processing.

Arts Council of Australia

Patterned on the Council for the Encouragement of Music and Arts which operated in the United Kingdom during the Second World War, an Australian organization was brought into being in 1943. In 1945 it became The Arts Council of Australia. Originating in New South Wales, Divisions are active now in the Australian Capital Territory, New South Wales, Queensland, South Australia, and Tasmania. A Federal Council was formed in 1964. New South Wales has a country branch network of over fifty centres. Rapid development in Queensland has resulted in the formation of over twenty-six branches.

The Arts Council receives State Government grants through the Departments of Education in New South Wales, Queensland and South Australia. From 1963 to 1966 substantial contributions were received from a private organization. Some activities of the Council are supported financially by non-metropolitan local government bodies and grants were made by the Gulbenkian Foundation in 1964 to 1966 to help in re-establishing the Federal Council. The New South Wales Division is a member of the Adult Education Advisory Board in that State, representing the 'live art' section of adult education. The Tasmanian Division is represented on, and works closely with, the Adult Education Board of that State.

Activities of the Arts Council are directed towards decentralization of the arts for the benefit of country centres and metropolitan and country schools. It is greatly concerned with taking the arts to children as a basic cultural development. Tours of high standard companies in opera, ballet, drama, puppets, etc. are operating throughout the year. The Young Elizabethan Players Company was formed jointly by the Arts Council and the Australian Elizabethan Theatre Trust in 1958 to take Shakespeare to schools in New South Wales and Queensland, and is still operating.

The Council handles a wide range of art exhibitions, both for city and country areas. Summer schools for drama, painting, pottery, music and other arts are an established annual feature of the work of the New South Wales and Queensland Divisions.

Yearly drama festivals are conducted for the Little Theatre movement. In 1963 and again in 1965 the New South Wales Division sponsored the first arts festivals for Sydney (North Side Arts Festival), with a wide range of cultural activities concentrated on the north side of Sydney Harbour. The festival is now a biennial event with the third festival being planned for August 1967.

Australian Elizabethan Theatre Trust

Inaugurated in 1954 to commemorate the first visit to the Commonwealth of Her Majesty the Queen, the Australian Elizabethan Theatre Trust has since presented drama, opera and ballet throughout the Commonwealth. The Trust receives annual grants from the Federal Government, the State Governments and city councils. Its income also includes subscriptions from members and donations from business houses.

In the field of drama it has presented, *inter alia*, the works of Australian playwrights, including plays which were subsequently presented overseas. The Elizabethan Trust Opera Company has given seasons of opera and has presented overseas guest artists, conductors and producers. Since 1956, to the end of 1964, more than 1,000 performances of opera have been given by the Trust Opera Company in all States and in the Australian Capital Territory. Twenty-six operas have been the repertoire in this period. The Australian Ballet, which commenced its inaugural season in November 1962, has visited all mainland capitals and New Zealand and presented world premiere productions of three commissioned ballets during 1964. The Commonwealth Government gave financial assistance for the Ballet to represent Australia at the Commonwealth Festival of Arts in Britain in 1965. The company also danced in Baalbeck, Nice, Paris, Berlin, Copenhagen, and Honolulu. The Trust has also been associated with commercial managements in the presentation of overseas attractions and large-scale musicals.

Country areas have been visited by Trust companies presenting opera, drama and puppets, in association with the Council of Adult Education in Victoria and The Arts Council of Australia. During 1966 four companies of Young Elizabethan Players will again present Shakespeare for schools in five States.

In Victoria the Trust is associated with the University of Melbourne in the Union Theatre Repertory Company. It is also associated with the University of New South Wales Drama Foundation in the Old Tote Theatre Company which had its inaugural season during 1963. The corresponding activity in Adelaide, the South Australian Theatre Company, was introduced by the Trust during 1965. Assistance is given to the Perth Playhouse, the Festival of Perth, the National Theatre and Fine Arts Society of Tasmania, and other companies. The Trust contributes productions to the biennial Adelaide Festival of Arts, five presentations being listed for the 1966 Festival.

One of the most important activities undertaken by the Trust is its association with the University of New South Wales and the Australian Broadcasting Commission in the establishment and maintenance of the National Institute of Dramatic Art. This provides a training ground for young Australian actors, producers and technicians. The Australian Ballet Foundation, in which the Trust and J. C. Williamson Theatres Ltd. are associated, also conducts the Australian Ballet School in Melbourne.

Historic Memorials Committee

The Historic Memorials Committee was established in 1911 for the purpose of securing portraits of distinguished Australians who had taken an active part in Federation. Later the Committee decided to obtain portraits of all Governors-General, Prime Ministers, Presidents of the Senate, Speakers of the House of Representatives, and other notable Australians. In addition the Committee may commission, and has in fact commissioned, paintings recording special events connected with the Commonwealth Parliament.

The Committee comprises the Prime Minister (Chairman), the President of the Senate, the Speaker of the House of Representatives, the Vice-President of the Executive Council, the Leader of the Opposition, and the Leader of the Opposition in the Senate. An Art Advisory Board, comprising a group of artists, was established in 1912 to assist the Committee by advising on works of art to be commissioned by the Committee.

Commonwealth Art Advisory Board

Since its beginning in 1912 the Art Advisory Board has always consisted of artists. At present there are five members. As well as assisting the Historic Memorials Committee the Board also advises the Government on the purchase of works of art for inclusion in the National Collection. In 1965-66, \$40,000 was provided for this purpose. The National Collection now contains over 1,000 works of art.

The Board, on behalf of the Government, also organizes and finances exhibitions of Australian art in overseas countries. In addition, it financially assists the showing in State Art Galleries of major exhibitions from abroad or assembled by one or more State Art Galleries. \$20,000 was provided in 1965-66 to meet the costs involved in these exhibitions.

SCIENTIFIC RESEARCH

This section refers specifically to various organizations, etc. associated with scientific research. Particulars regarding Commonwealth medical research organizations are given in the chapter Public Health.

A special article on Science and Technology in Australia, prepared by the Commonwealth Scientific and Industrial Research Organization of Australia, was included in Year Book No. 49 (see p. 781).

Outline of Research in Australia

Scientific research in Australia prior to 1939-45 War

Interest in science goes back to the beginning of Australian history. Captain James Cook discovered the east coast of Australia when returning from a scientific expedition to the South Pacific, and one of his passengers was the President of the Royal Society, Sir Joseph Banks, who was the first of many naturalists to be fascinated by the unique flora and fauna of the continent. The Stone Age culture of the Aborigines drew the early attention of anthropologists. The Aboriginal boomerang was a source of interest to the Surveyor-General of New South Wales, Sir Thomas Mitchell, who attempted to apply its spinning characteristics in a 'boomerang propeller' for driving steamships.

Until the 1914-18 War Australian science rested on the individual accomplishments of a few outstanding men, working largely in isolation. Three names stand out in this period—Farrer, Hargrave and Mitchell. After years of patient work as a plant breeder, Farrer developed the first successful strain of rust-resistant wheat. Hargrave's experiments in aviation attracted world-wide attention. Mitchell, a hydraulic engineer, invented a thrust bearing which made it possible to increase greatly the motive power of ocean-going screw steamships.

During the first world war Australia followed the British example and set up, in 1916, the Commonwealth Advisory Council for Science and Industry which finally became the Commonwealth Scientific and Industrial Research Organization (C.S.I.R.O.). Between the two world wars most of the systematic research done in Australia was carried out in the Council's laboratories. A little was done by some State departments of agriculture, but very little in the universities, which had not yet come to be regarded as research centres. Many of the most able Australian scientists were attracted to posts abroad.

Scientific research during and following 1939-45 War

The situation changed with the onset of the 1939-45 War and the economic expansion which followed it. Until 1939 the activities of the Council for Scientific and Industrial Research had been concentrated in the biological sciences, stimulated by the needs of primary industry. With the war C.S.I.R.'s work expanded greatly and spread into the physical sciences, with particular attention to the technical problems of industrial production. Many products previously imported from overseas, such as drugs and precision instruments, had to be manufactured locally, and much research and developmental work was necessary before this could be done. The work was carried out by C.S.I.R., by university science departments, and by industrial firms. These wartime activities had permanent effects, particularly in the universities and in C.S.I.R.

Australian National University and other university research

In 1946 the Commonwealth Government established the Australian National University, whose statutory functions required it to 'encourage and provide facilities for post-graduate research and study, both generally and in relation to subjects of national importance to Australia'. The growth of the National University, with its major emphasis on research and post-graduate training, introduced a new influence on the university scene which, apart from its own research activities, has provided an important stimulus, indirectly, for the growth of research in

other universities. This was made financially possible by increased grants from the Commonwealth. Until 1936 only small *ad hoc* research grants had been made to the universities. In 1936 a five-year programme was inaugurated by which £30,000 (\$60,000) was spent annually on grants for research in the physical and biological sciences. This figure had grown to £100,000 (\$200,000) in 1950, after which the amount was absorbed in the new system of Commonwealth grants to the States for university purposes. In 1957 the report of the Committee on Australian Universities (the Murray Report) recommended increases in research funds, and drew attention to the small number of post-graduate students. A further increase was approved in 1963, following the second report of the Australian Universities Commission, and in 1965 the Commonwealth established the Australian Research Grants Committee to administer the awards.

The growth of university research is reflected in the increase of post-graduate studies. The Ph.D. degree was introduced into Australia only after the second world war, and the first such award was made by the University of Melbourne in 1948. From then until 1964 more than 1,000 Ph.D.'s were awarded in mathematics, science and engineering, and more than 150 Ph.D.'s are currently being awarded annually in these fields. More than one-quarter of all Ph.D. degrees awarded in this period have been in chemistry.

Research in the universities is mostly of a 'pure' or 'fundamental' character, although universities have also concerned themselves with 'applied' research directed to the solution of practical problems, e.g. in metallurgy, chemical industry, agriculture, and food processing. A recent example of co-operation between a university and a State government agency was the investigation carried out by the University of Melbourne into the production of town gas from the lignite of the Yallourn-Morwell deposits in Gippsland, Victoria. In 1959 the University of New South Wales established Unisearch Ltd., with the purpose of assisting by research and other suitable means the advancement, development and practical application of science to industry and commerce.

Research by Government agencies

The post-war growth of C.S.I.R.O. has proceeded in both pure and applied science. Although increasing attention is being paid to industrial problems, the major impact of C.S.I.R.O. activities is still in the field of primary production. Research on pasture improvement, for example, is estimated to have brought about a doubling of the high-quality pasture in the decade 1948-58, and the successful programme of rabbit control that followed C.S.I.R.O.'s work on myxomatosis brought about a notable increase in the numbers of sheep during the same period. Apart from C.S.I.R.O., the research activities of other Commonwealth agencies have grown substantially since the war. These include the Weapons Research Establishment (set up in 1947) and other laboratories of the Department of Supply, all concerned with defence research and development. In 1954 the Atomic Energy Commission decided to set up its own research establishment at Lucas Heights, near Sydney. The Royal Australian Navy also maintains an experimental laboratory. Other agencies engaged in research include the Bureau of Meteorology, the Ionospheric Prediction Service, the Bureau of Mineral Resources, Geology and Geophysics, and various laboratories attached to the Commonwealth Health Department.

Research work by State Government agencies remains largely in the field of agriculture. In Queensland the great importance of the sugar industry is reflected in the work of the Bureau of Sugar Experiment Stations. Some coordination of research in agriculture is exercised through the Standing Committee on Agriculture, a joint Commonwealth-State body. In recent years some interest has also been shown in problems related to power generation, public health and water supply.

Research in industry

Research in industry has also expanded, though not at the same rate as in Government agencies or the universities. Since 1955 several large firms have established their own central laboratories, and appreciable sums are being spent on research in the chemical, metals, sugar and paper industries.

Research in social sciences

Research in the social sciences has developed largely since the war. Before 1939 such work was virtually confined to anthropology and economics. The need for a much wider scale of activity was one of the motives for the establishment of the Australian National University, with a Research School of Social Sciences and a Research School of Pacific Studies. In 1952 the Social Science Research Council was established, with support from the Carnegie Corporation and the Commonwealth Government, to encourage the advancement of the social sciences, to foster research and to subsidize the publication of studies. The Institute of Applied Economic Research, supported by private funds, was set up at the University of Melbourne in December 1962; its work ranges from the economics of industry to the economics of welfare. In 1961 the Australian National University set up the New Guinea Research Unit, based in Port Moresby, which is carrying out a range of investigations into economic and social change in the Territory of Papua

and New Guinea as it moves towards self-government. The first election held in the Territory in 1964 was the subject of a full-scale study. In 1964 the Commonwealth Parliament passed an Act to set up the Australian Institute of Aboriginal Studies, whose functions are to promote Aboriginal studies, assist universities and other institutions in training research workers, and to assist in the publication of research results. Despite these developments, the growth of research in the social sciences has been considerably slower than in the natural sciences. Its future growth will, however, be stimulated by the establishment of new universities with strong interests in the social sciences, and by the increased demand for information about social changes arising from both public and private sources.

Distribution of Australian research work

Research in Australia has not, on the whole, been strongly concentrated in particular fields. Nevertheless, some fields have attracted more attention than others, either because of their special economic or social importance or because Australia offers particular facilities for pursuing them. The wool industry, mineral processing, and the manufacture of paper from native hardwoods are examples of the former. The most notable example of the latter is radio-astronomy, for which Australia has special advantages because of its geographical position. The projected installation of one of the world's largest optical telescopes, to work in conjunction with radio-astronomical observations, will enable the exploitation of Australia's climatic advantages for optical astronomy. The combination will give Australia a premier position in this field of physical science. Hitherto the most notable achievements of Australian scientists have been in the biological sciences, as shown by the three Nobel Prizes won by Australians—Florey for work on penicillin, Burnet for immunology, and Eccles for neuro-physiology.

Commonwealth Scientific and Industrial Research Organization

The Commonwealth Scientific and Industrial Research Organization (C.S.I.R.O.) is Australia's largest civil scientific body. Established as the Council for Scientific and Industrial Research (C.S.I.R.) in 1926, it was re-organized in 1949 under the Science and Industry Research Act and now has a staff of more than 5,500 including some 1,700 professional scientists. An account of the organization and work of the former Council, and the earlier Commonwealth Institute of Science and Industry from which the Council was formed, was given in earlier issues of the *Official Year Book*. (See No. 14, p. 1061 and No. 37, p. 1183.)

The principal function of C.S.I.R.O. is to carry out scientific research for the primary and secondary industries of the Commonwealth and its Territories. C.S.I.R.O. does not conduct defence research, medical research or atomic energy research. The other powers and functions of C.S.I.R.O. as defined in the Science and Industry Research Act of 1949, include:

- the training of scientific research workers and the awarding of scientific research studentships and fellowships;
- the making of grants in aid of pure scientific research;
- the recognition or establishment of associations of persons engaged in any industry, for the purposes of carrying out industrial scientific research and the co-operation with, and the making of grants to, such organizations;
- the testing and standardization of scientific apparatus and instruments and the carrying out of scientific investigation connected with standardization;
- the collection and dissemination of information relating to scientific and technical matters;
- the publication of scientific and technical reports, periodicals and papers.

Before 1939 C.S.I.R. was engaged largely in research into problems of primary industry, in particular, plant and animal diseases and nutrition, soils, pasture improvement, insect pest control, usage of Australian timbers, food processing, and fisheries. Since 1939 an extensive programme of wool research has been developed and research has been extended into the physical and engineering sciences with particular reference to international standards, radiophysics, various aspects of chemistry, metal physics, meteorological research, mineral processing, building research, dairy products research, engineering research, and coal utilization.

Organization

C.S.I.R.O. is a statutory corporation operating under its own Act of Parliament and exercising its powers subject to the regulations and the approval of the Minister. The Minister responsible for the Act is the Prime Minister, but he has delegated this responsibility to the Minister-in-charge of Commonwealth Activities in Education and Research.

The governing body of the Organization is the Executive, which consists of nine members appointed by the Governor-General. There are five full-time members, one of whom is Chairman, and four part-time members. At least five of the members must possess scientific qualifications. The Executive is responsible to the Minister for the policy and the work of the Organization.

For carrying out its research work, C.S.I.R.O. is divided into four major group laboratories and a number of Divisions and Sections. The four group laboratories are the Animal Research Laboratories comprising four Divisions, the Chemical Research Laboratories comprising six Divisions, the National Standards Laboratory comprising two Divisions, and the Wool Research Laboratories comprising three Divisions. There are also seventeen independent Divisions in other research fields and an additional ten independent Sections. The Head Office is in Melbourne and associated with it are the Central Library (see pages 625-6), the Film Unit, and the Translation Unit. Regional Administrative Offices are located at Brisbane, Canberra, Melbourne, and Sydney. The Organization also maintains the Australian Scientific Liaison Office in London and the Office of the Scientific Attaché in Washington.

Since the Organization's activities are Commonwealth-wide and often involve extensive field work, a number of branch laboratories and field stations have been established in various parts of Australia. The more important of these are included in the following lists.

Laboratories and Divisions

Animal Research Laboratories, consisting of the following four Divisions:

- Animal Genetics, Sydney, with a branch laboratory and field station at Rockhampton, Queensland, and field stations at Armidale and Badgery's Creek, New South Wales, and at Cunnamulla, Queensland.
- Animal Health, Melbourne, with branch laboratories in Sydney and Brisbane, and field stations at Jirraoomba, Queensland, and Werribee, Victoria.
- Animal Physiology, Sydney, with a laboratory and field station at Armidale, New South Wales, and a branch laboratory in Brisbane.
- Nutritional Biochemistry, Adelaide, with a field station at O'Halloran Hill, South Australia.

Chemical Research Laboratories, Melbourne, consisting of the following six Divisions:

- Applied Mineralogy, with branch laboratories in Perth and Sydney.
- Chemical Engineering.
- Chemical Physics.
- Mineral Chemistry.
- Organic Chemistry.
- Physical Chemistry and
- Microanalytical Laboratory.

National Standards Laboratory, Sydney, consisting of the following two Divisions:

- Applied Physics.
- Physics, with the Solar Observatory at Culgoora, New South Wales.

Wool Research Laboratories, consisting of the following three Divisions:

- Protein Chemistry, Melbourne.
- Textile Industry, Geelong, Victoria.
- Textile Physics, Ryde, New South Wales.

The other Divisions are:

- Building Research, Melbourne, with an office in Port Moresby, New Guinea.
- Coal Research, Sydney.
- Dairy Research, Melbourne.
- Entomology, Canberra, with branch laboratories in Sydney, Brisbane, Hobart, Perth and Armidale, New South Wales, and field centres at Albury, Trangie, and Wilton, New South Wales, and at Amberley, Queensland.
- Fisheries and Oceanography, Cronulla, New South Wales, with branch laboratories in Brisbane, Melbourne and Perth.
- Food Preservation, Sydney, with branch laboratories at Gosford, New South Wales, (operated jointly with the New South Wales Department of Agriculture), and in Brisbane and Hobart.
- Forest Products, Melbourne.
- Land Research, headquarters in Canberra, and field stations and laboratories at Alice Springs, Katherine, and Darwin, Northern Territory, and Kununurra, Western Australia.
- Mathematical Statistics, Adelaide, with officers stationed at a number of Divisions and Sections and at the University of Melbourne.
- Mechanical Engineering, Melbourne.
- Meteorological Physics, Melbourne.
- Plant Industry, Canberra, with branch laboratories in Perth, Hobart, Brisbane and Melbourne, and at Deniliquin and Armidale, New South Wales, field stations and experimental farms at Canberra and Deniliquin, and at Kojonup and Baker's Hill, Western Australia, and a tobacco research institute at Mareeba, Queensland.

Radiophysics, Sydney, with the Australian National Radio Astronomy Observatory at Parkes, New South Wales, and the Solar Observatory at Culgoora, New South Wales.
 Soils, Adelaide, with branch laboratories in Brisbane, Canberra, Perth, and Hobart, and Townsville, Queensland.
 Tribophysics, Melbourne.
 Tropical Pastures, Brisbane, with branch laboratories at Townsville and Lawes, Queensland, and field stations at Samford and Woodstock, Queensland.
 Wildlife Research, Canberra, with a branch laboratory in Perth.

Sections

Computing Research, Canberra, with subsidiary installations at Adelaide, Melbourne and Sydney.
 Editorial and Publications, Melbourne.
 Horticultural Research, Adelaide, with a field station at Merbein, Victoria.
 Irrigation Research Laboratory, Griffith, New South Wales.
 Mineragraphic Investigations, Melbourne.
 Ore Dressing Investigations, Melbourne.
 Physical Metallurgy, Melbourne.
 Soil Mechanics, Melbourne, with a branch laboratory in Adelaide.
 Upper Atmosphere, Camden, New South Wales.
 Wheat Research Unit, Sydney.

The Organization's total budget for 1965-66 was more than \$38,000,000. About three-quarters of this was provided by the Commonwealth Government, while much of the remainder was provided by trust funds which have been set up by various primary producer groups. The largest of these is the Wool Research Trust Fund, but the wheat, dairy, beef cattle, leather, and tobacco industries also contribute substantial amounts. The funds are derived from a levy on produce matched by a Government contribution.

Mount Stromlo Observatory

Mount Stromlo Observatory—since 1957 incorporated into the Australian National University—is the largest observatory in the southern hemisphere. It is in effect the Department of Astronomy of the Australian National University, and its staff members assist in the training of the future astronomers of Australia. In its instrumental resources it is second only to some of the great observatories of America. Since it is located south of the Equator, it is placed especially advantageously for the conduct of research into the structure of the Milky Way system and of the Star Clouds of Magellan. The telescopes and auxiliary equipment at the Observatory provide access to parts of the sky that are forever hidden from the view of northern hemisphere astronomers. There is increasing emphasis on researches observational and theoretical, relating to the physics of the atmospheres of the stars. Mount Stromlo astronomers have therefore a special responsibility to do research on stars and other celestial objects at far southern declinations.

Mount Stromlo itself is a ridge of hills, approximately one mile long, situated at $35^{\circ} 19' 16''$ South Latitude and $149^{\circ} 0' 20''$ East Longitude, seven miles west of the city of Canberra. Its highest point is about 2,560 feet above sea level, and telescopes can be situated so as to be well screened from the lights of the city.

The first permanent installation on the site was established in 1911, but, because of the war and other circumstances, the development of the Observatory was delayed. It was not until 1925 that regular astronomical work could be undertaken. Since then the Observatory has developed steadily, and under its third Director the scientific staff now consists of fifteen astronomers. This does not include fifteen scholars and a number of oversea astronomers visiting Mount Stromlo for periods of a year or so. With technical, clerical and maintenance personnel, the total staff amounts to about 80.

Mount Stromlo Observatory possesses ten mounted telescopes with apertures ranging from five inches to 74 inches. The 74-inch reflector is of the largest size of telescope in the southern hemisphere. There are also special telescopes for the Time Service, and the University of Uppsala, Sweden, has a 26-inch Schmidt telescope on Mount Stromlo.

The principal fields of research at Mount Stromlo are as follows.

- Studies of the structure and dynamics of the Milky Way system.
- Investigation of the Large and Small Magellanic Clouds.
- Studies of the physical properties of the interstellar medium of gas and dust, and its relation to the spiral structure of our galaxy.
- Studies of the physics of the stars of the southern hemisphere by spectrographic means and by photoelectric techniques.
- Maintenance of the National Time Service, leading to studies of the variable rotation of the earth and polar motion.

Published accounts of the researches have a world-wide distribution.

The Observatory is at present completing a major expansion of equipment and staff. A permanent field station is in operation on Siding Spring Mountain (Latitude 31° 16' South; Longitude 148° 41' East; altitude 3,820 feet) near Coonabarabran, New South Wales. This is an area having less cloud than Mount Stromlo. The principal instrument is a modern 40-inch reflector, alongside of which is a 16-inch telescope. Both telescopes were built in the United States and are now in operation. A 24-inch polarization reflector will be placed into operation in the middle of 1966. Other sites are being examined for the future development of astronomy in Australia. A more detailed description of the Observatory's work is given in Year Book No. 46, pages 1142-4.

Australian Atomic Energy Commission

Establishment and functions of the Commission

In November 1952 a Commission of three members was appointed to control the Commonwealth's activities in relation to uranium and atomic energy, and in April 1953 upon the enactment of the *Atomic Energy Act* 1953 the Commission was established as a statutory authority with powers and functions as defined in the Act. Under amending legislation the number of Commissioners was increased to five in April 1958. The Commission is a corporate and autonomous body, controlling its own service. It functions under the direction of the Minister for National Development.

The functions of the Commission fall under two main headings. Firstly, it is responsible for undertaking and encouraging the search for and mining of uranium and is empowered to co-operate with the appropriate authorities of the States in connection with these and related matters. Secondly, it is authorized to develop the practical uses of atomic energy by constructing and operating plant for this purpose, carrying out research, and generally fostering the advancement of atomic energy technology.

Uranium prospecting and mining

Production of uranium concentrate in Australia is now confined to the Rum Jungle Plant, Northern Territory. Since 1953 mining and treatment operations here have been conducted for the Commonwealth by a mining company. Mining of presently known reserves of uranium in this area was finished in 1963, but treatment of stock-piled ore will continue for some years. Australia's own domestic requirements of uranium oxide to the end of the present century are expected to be greater than currently known reserves. Because of this the Commonwealth has continued exploration for uranium in the Rum Jungle area, and has sought to encourage private producers to resume exploration.

Research

The Commission's Lucas Heights Research Establishment is Australia's atomic energy research and information centre. Its research programme is concerned with the development of nuclear power, the production and utilization of radioisotopes, and other related fields, and is directed towards the long-term development of national resources.

The research programme over the past few years has been a technical and feasibility study of an advanced high temperature gas cooled reactor system in which the core was composed of ceramic materials—oxides of uranium, plutonium, thorium and beryllium. Carbon dioxide was considered as the coolant gas. The study has been largely concerned with fundamental research and development in the fields of reactor materials, nuclear and reactor physics, and nuclear engineering. The feasibility study has provided valuable personnel training in nuclear science and engineering. The Commission now proposes to widen its research programme to study the technical and economic features of other types of reactors which have particular relevance to future nuclear power generation in Australia.

The use of radioisotopes is increasing rapidly in Australia in scientific research and development, in treatment of diseases and in agriculture and industry generally. Most of these, especially short-lived radioisotopes which cannot be imported, are being produced in the Commission's high flux research reactor HIFAR, at Lucas Heights. The A.A.E.C. is also producing the majority of cobalt 60 teletherapy sources for cancer treatment in Australia, and is exporting high activity sources to New Zealand and to Asia. The Commission is promoting research into radioisotope application and is co-operating with universities, industry and Governmental bodies in making available the most up-to-date techniques involving the use of radioisotopes in every field.

Large-scale hydrological investigations using radioactive tracers have been conducted by the Commission. These have included sand tracing in Botany Bay and silt tracing in Newcastle Harbour and the Hunter River in association with maritime and development authorities.

Extensive research and development work on the technical and scientific applications of gamma radiation is also being carried out. The possibilities of radiation for such purposes as industrial sterilization, food preservation, disinfestation of wheat and flour, and the control of fruit fly and other insect pests are being investigated. Scientists at Lucas Heights are also studying the biological effects of radiation and questions of health and safety.

Considerable potential exists in Australia for possible future application of nuclear explosives for large civil engineering and mining projects. The Commission has maintained close interest in the developmental work under the United States Plowshare Program. A United States expert visited Australia in 1962, and an Australian technical mission visited the United States of America in 1963 to make a detailed examination of the use of nuclear explosives for peaceful purposes. The Commission continues to receive data and reports relating to progress in this field.

The Research Establishment has developed facilities for the absolute standardization of radioisotopes and has participated in international intercomparisons in the health and safety field. Work is directed to various aspects of radiation dosimetry, to radiation biology, and to aspects of the toxicology of beryllium compounds.

Lucas Heights is a centre of specialized equipment and information. In addition to the research reactor HIFAR, used for testing materials and producing radioisotopes, there is much other equipment unique in Australia. All these facilities are available to universities and other institutions under suitable conditions. In these endeavours the Atomic Energy Commission is working in close co-operation with the United Kingdom Atomic Energy Authority, under arrangements which give Australia access to results of British research on peaceful atomic energy uses. Results of research in Australia are in like manner available to Britain. Work in Australia, though constituting a self-contained programme, is co-ordinated with the British programme to avoid overlapping of research objectives and duplication of investigations. Australia also has bilateral arrangements with the United States, Canada and Japan, and recently accredited a diplomatic mission to the European Atomic Energy Community (Euratom). Australia is also taking part in the promotion of the peaceful uses of atomic energy through the International Atomic Energy Agency. For the year 1964-65 the Commission placed \$110,000 worth of research contracts mainly within Australian universities on matters related to the research programme at Lucas Heights. Since 1954 the Commission has placed research contracts to a total value of about \$1,048,000.

The Australian Institute of Nuclear Science and Engineering comprises the Australian Atomic Energy Commission and Australian universities. The Institute's operations are financed by membership subscriptions and a Commonwealth Government grant which amounted to \$150,000 in 1965-66. The purpose of the Institute is to stimulate research and training in nuclear science and engineering within the universities and to arrange access for university research workers to the highly specialized equipment at the A.A.E.C. Research Establishment.

The Australian School of Nuclear Technology is jointly sponsored by the Commission and the University of New South Wales. Courses are now being offered in nuclear technology, production and use of radioisotopes, radiological safety, health physics, and other related topics. Application for admission is open to graduates from Australia and overseas.

Standards Association of Australia

The Standards Association of Australia is the national standardizing organization and issues Australian standard specifications and test methods for materials and products and standard codes of practice.

The Standards Association was established in July 1929 by the amalgamation of the Australian Commonwealth Engineering Standards Association and the Australian Commonwealth Association of Simplified Practice. It was incorporated by Royal Charter in 1950. It is an independent body in close touch with modern industrial requirements and has the full recognition and support of the Commonwealth and State Governments and of industry. Half of its funds are provided by Commonwealth Government grant, the remainder coming from membership subscriptions, other contributions, and sale of publications. Organizations, companies and individuals are eligible for subscription membership.

The governing body of the Association is a Council, on which industry is fully represented, together with official representatives of the Commonwealth and State Governments and their technical departments, and of scientific, professional and commercial organizations. Voluntary assistance is rendered in the drafting of specifications and codes by several thousand individuals who are experts in their particular fields. They are organized into some hundreds of committees. These committees are grouped under broad industry divisions, including building construction and civil engineering, electrical engineering, mechanical engineering, chemical, timber, plastics, packaging, and iron and steel.

The Association publishes standards of many kinds for the benefit of industry and commerce. Its specifications provide a suitable standard of performance, quality and dimension, and an equitable basis for tendering. They help to eliminate redundant qualities and sizes. They enable purchasers to obtain their requirements with greater assurance of satisfaction, with more rapid delivery, and without the necessity of drafting individual specifications. As a rule the Association creates national standards based on Australian practices, but attention is also given to international recommendations issued by the international standards bodies referred to below. There is also some endorsement of British standards, with or without modification. More than 1,400 Australian standards have been published and more than 600 projects are in hand.

The underlying principles covering the preparation of the specifications and codes are that they shall be in accordance with the needs of industry; that the common interests of producer and consumer be maintained; that periodical revision should keep the work abreast with progress; and that standardization be arrived at by general consent without coercion. The Association has two specialized libraries, one in Sydney and one in Melbourne, containing the national standards of all countries with standards organizations. These libraries serve to provide necessary material for committee work and also give freely a service to those concerned with standards or related matters, e.g. to importers and exporters seeking details of practice in other countries.

The Association has international affiliations and is a member, representing Australia, of the International Organization for Standardization (ISO) and of the International Electro-technical Commission (IEC). Close links are maintained with the British Standards Institution and the standards organizations of other British Commonwealth countries. The Association is the Australian agent of the British Standards Institution and can supply all British standards. Its functions are linked to some extent with those of the National Association of Testing Authorities in that whereas the Standards Association establishes and publishes standard test methods, the Association of Testing Authorities works to ensure that registered testing laboratories maintain their level of competence.

The headquarters office of the Association is in Sydney and there is a major branch office in Melbourne. Branch offices are located also in other capital cities and at Newcastle, New South Wales.

National Association of Testing Authorities

The National Association of Testing Authorities organizes testing facilities throughout Australia to serve private and governmental needs.

Membership is open to authorities whose testing laboratories conform to the standards of staffing and operation defined by the Association. Testing authorities may register their laboratories voluntarily. The Association assesses the competence of the laboratories and ensures that their standards of competence are maintained. Certificates of test issued by registered laboratories may be endorsed in the name of the Association. NATA endorsed test certificates are generally accepted by governmental, industrial and commercial interests.

Laboratories are registered for performance of specific tests in the fields of metrology, mechanical testing, electrical testing, optics and photometry, industrial radiography and flaw detection, heat and temperature measurement, chemical testing, biological testing, and acoustic and vibration measurement. At the end of 1965 there were 522 laboratories registered with the Association, which had a further ninety applications for registration before it.

Scientific societies

Royal Societies

The following table contains the latest available statistical information regarding the Royal Society in each State.

ROYAL SOCIETIES, DECEMBER, 1965

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Canberra
Year of charter	1866	1859	1884	1880	1913	1844	1930
Number of members	354	496	343	237	228	623	166
Volumes of transactions issued(a)	98	79	(b) 76	89	57	99	..
Number of books in library	32,000	26,150	66,857	23,000	6,500	35,100	..
Societies on exchange list	395	335	285	350	231	314	..

(a) Cumulative total.

(b) Volumes of proceedings.

Australian Academy of Science

The Australian Academy of Science is the national institution representing science in Australia. Constituted by Royal Charter in 1954, the Academy promotes scientific knowledge and research, maintains standards of scientific endeavour and achievement in the natural sciences in Australia, and recognizes outstanding contributions to the advancement of science. The Academy represents Australian science and scientists at the national and international level, organizes meetings of scientists, holds symposia, and arranges for visits of scientists from other countries to Australia.

In its functions it is comparable with the Royal Society of London and national academies of science of many other countries. Its 106 Fellows (designated F.A.A.) are eminent in some branch of the physical or biological sciences in Australia, occupying professional positions in universities, the Commonwealth Scientific and Industrial Research Organization, other research organizations, and industry. A very few places are reserved for Fellows who have rendered conspicuous service in the cause of science. No more than six new Fellows are elected in any one year.

The Australian Academy co-ordinates Australian contributions to such co-operative ventures as the International Geophysical Year, the International Year of the Quiet Sun, and the International Biological Programme. Representation is provided at the General Assemblies of the International Scientific Unions and similar bodies relating to astronomy, geophysics, geology, physics, crystallography, mathematics, biochemistry, physiology, geography, biological sciences, chemistry, Antarctic research, space research, and oceanic research.

As the Australian Academy of Science is too young a body to be financially self-sufficient, the Commonwealth Government makes annual grants of general purpose funds without affecting the autonomy of the Academy. These grants, together with substantial private benefactions, enable the Academy to continue its work. Research fellowships provided by industry are administered. The Academy is managed by an elected council comprising a President, Treasurer, two secretaries and eight ordinary members who are drawn equally from the physical sciences and biological sciences. Chief administrative officer is the Executive Secretary who is not a Fellow. Its conference centre in Canberra was opened in 1959.

Australian and New Zealand Association for the Advancement of Science

This association was founded in 1887. Its headquarters are at Science House, Sydney, and congresses are held at intervals of approximately eighteen months in the various States and in New Zealand. The 39th Congress is to be held in Melbourne in January 1967.

Other scientific societies

The Linnean Society of New South Wales, with headquarters in Sydney, was founded in 1874. Sir William Macleay, who died in 1891, during his lifetime and by his will endowed the Society to the amount of \$134,000, which has been increased by investment to approximately \$240,000. The Society offers annually to graduates of the University of Sydney, who are members of the Society and resident in New South Wales, a research fellowship (Linnean Macleay Fellowship) in various branches of natural history. The library has some 19,000 volumes. Ninety volumes of proceedings have been issued, and the Society exchanges with about 300 kindred institutions and universities throughout the world. The membership at the end of 1965 was 299.

The British Astronomical Society has a branch in Sydney, and in each of the States there is a branch of the Australian Medical Association.

There are more than 200 other learned societies devoted to the study of particular sciences. Some of these, including the Royal Australian Chemical Institute and the Institute of Engineers, Australia, are qualifying bodies, admission to which is by qualification only. Others, such as the Institute of Food Technologists, are open to any interested person. Some societies, such as the Australian Biochemical Society, have annual symposia of a very high standard. A great many of these bodies publish appropriate journals.

STATE GOVERNMENT EXPENDITURE ON EDUCATION, ETC.

Estimates of the expenditure by each State Government on education and related items are shown in the following tables.

Expenditure from revenue and special funds

Details shown on page 654 relate to net expenditure from Consolidated Revenue and the special funds: Opera House Account, Maintenance and Repairs to Schools and Police Buildings Account and the Joint Coal Board Welfare Fund (New South Wales); Forestry Fund (Victoria); and Lotteries Commission Fund (Western Australia). Details exclude expenditure from the Commonwealth university grants, and expenditure on debt charges, pay-roll tax and superannuation payments. The cost of medical and dental inspection of school children is also excluded, as this service is considered to be more appropriately classified under public health.

For these reasons, the figures do not represent total current government expenditure on education in each State. Furthermore, because of differences in organization and accounting methods the information shown is not on exactly the same basis for all States, and consequently comparisons of State expenditures are approximate only.

STATE NET EXPENDITURE ON EDUCATION, ETC. (a) FROM REVENUE AND SPECIAL FUNDS, 1960-61 TO 1964-65

(\$'000)

Year	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	Total
1960-61 . .	116,270	80,386	33,894	28,254	22,756	11,512	293,072
1961-62 . .	125,974	89,264	36,016	32,534	25,016	12,722	321,526
1962-63 . .	135,176	100,352	39,852	35,612	26,922	13,920	351,834
1963-64 . .	151,262	113,288	43,894	40,318	29,940	15,340	394,042
1964-65 . .	179,218	124,935	47,265	44,468	34,137	17,382	447,405

(a) Includes expenditure on administration, transport of school children, teacher training, primary, secondary, technical, agricultural, and university education; and expenditure of libraries, museums, etc.

State Loan Fund expenditure on educational buildings

Details in the following table show gross Loan Fund expenditure in each State on educational buildings.

**STATE GROSS LOAN FUND EXPENDITURE ON EDUCATIONAL BUILDINGS
1960-61 TO 1964-65**

(\$'000)

Year	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	Total
1960-61 . .	31,498	25,500	7,078	9,672	5,468	4,018	83,234
1961-62 . .	32,356	28,320	6,834	11,888	5,814	3,770	88,982
1962-63 . .	32,148	28,130	8,818	11,910	5,458	4,046	90,510
1963-64 . .	35,631	30,566	11,270	9,850	5,867	4,759	97,943
1964-65 . .	40,177	30,450	9,609	11,183	7,030	4,456	102,905

CHAPTER 19

NATIONAL ACCOUNTS

NATIONAL INCOME AND EXPENDITURE

National accounting aims at providing a systematic summary of the transactions taking place in the economy, especially of those that relate to the production and use of goods and services, and to transfers of income or capital between sectors of the economy.

Estimates of national income and expenditure have been compiled by the Bureau since 1944-45 and have been published annually as papers entitled *National Income and Expenditure* accompanying the Commonwealth Budgets. Detailed annual estimates of national income and expenditure on a revised basis were published in *Australian National Accounts, National Income and Expenditure*, 1948-49 to 1964-65. Preliminary estimates for 1965-66 were published in a Budget Paper. Quarterly estimates are published in *Quarterly Estimates of National Income and Expenditure*.

The figures shown on pages 659-66 are as published in *Australian National Accounts, National Income and Expenditure*, 1948-49 to 1964-65.

Description of the National Accounts

A brief description of the conceptual basis of national accounts is given in this section, but for a more detailed treatment of the concepts and structure of the Australian National Accounts reference should be made to *Australian National Accounts, National Income and Expenditure*, 1948-49 to 1964-65 or to Year Book No. 50, pages 1253-68.

Definition and relationship of the concepts of product, income and expenditure

The main concepts of product, income and expenditure in the Australian National Accounts are defined and expressed in equivalents as follows.

Gross national expenditure within a given period is the total expenditure on final goods and services (i.e. excluding goods and services produced or imported and used up in the process of further production) bought for use in the Australian economy. It is equivalent to gross national product, plus imports of goods and services, less exports of goods and services.

National turnover of goods and services is the total flow of final goods and services within a given period in the Australian economy as a whole (i.e. excluding goods and services produced or imported and used up in the process of further production) derived from production in Australia and imports. This value is equivalent to gross national product plus imports of goods and services or, alternatively, to gross national expenditure plus exports of goods and services.

Gross national product is the total market value of goods and services produced in Australia within a given period after deduction of the cost of goods and services, other than capital equipment, used in the process of production. Thus gross national product, as here defined, is 'at market prices'. It is equivalent to gross national expenditure, plus exports of goods and services, less imports of goods and services.

Gross national product at factor cost is that part of the cost of producing the gross national product which consists of gross payments to factors of production (labour, land, capital, or enterprise). It represents the value added by these factors in the process of production and is equivalent to gross national product, less indirect taxes, plus subsidies.

Net national product is the part of the value added within a given period by factors of production (labour, land, capital, or enterprise) which accrues as income to their suppliers after allowing for the depreciation of capital equipment. It is equivalent to gross national product at factor cost less allowance for depreciation.

National income is the net income accruing within a given period to Australian residents from their services in supplying factors of production (labour, land, capital, or enterprise) in Australia or overseas. It is equivalent to net national product, plus income receivable from overseas, less income payable overseas.

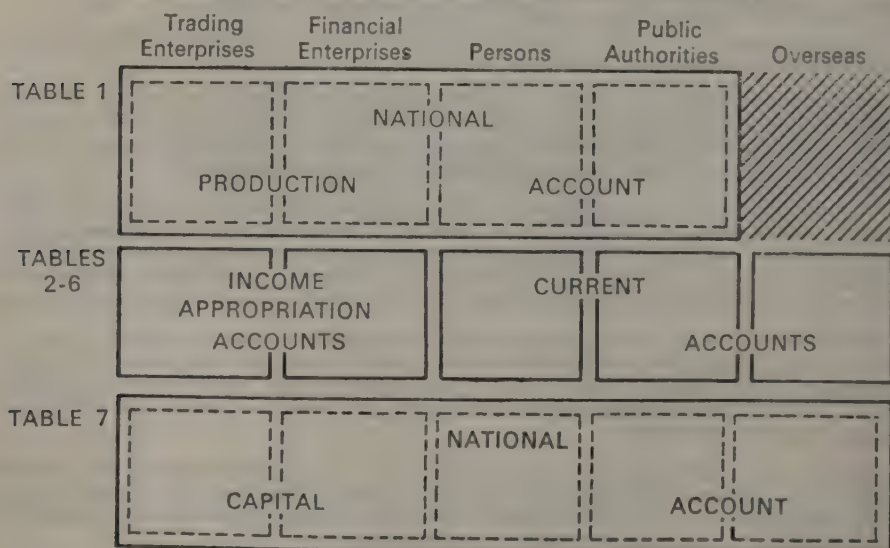
Personal income is the total income, whether in cash or kind, received by persons normally resident in Australia. It includes both income received in return for productive activity (such as wages, salaries and supplements, incomes of unincorporated enterprises, etc.) and transfer incomes (such as cash social service benefits, interest, etc.). Personal income also includes any property income received by non-taxable organizations such as private schools, churches, charitable organizations, etc. However, it excludes any income which might be said to accrue to persons in the form of undistributed company income and retained investment income of life insurance, etc., funds.

Framework of accounts and sectors

In the accounts shown in Tables 1 to 7 four internal sectors are distinguished—persons, public authorities, financial enterprises, and trading enterprises. In addition, there is an overseas sector which shows a summary of the transactions into which overseas governments, persons and businesses enter with Australian residents. All the sectors (except the overseas sector) engage in productive activity, but in the tables a national production account for the whole economy is shown instead of separate accounts for each sector. Similarly, the tables show only a national capital account for the economy, but a current (or income appropriation) account is shown for each sector. The system of accounts as thus envisaged is a completely articulated system in that a credit in any account must be matched with a corresponding debit in some other account—or in the same account if a complete consolidation of the transactions appropriate to that account has not been carried through.

The framework of sectors and accounts underlying the form of social accounts shown in this Year Book is set out in the following diagram. As stated in the previous paragraph, each sector could be envisaged as having separate production, appropriation and capital accounts, but in the tables compiled for Australia the production and capital accounts have been combined. In the diagram the solid rectangles depict the actual form of the tables, and the remaining rectangles show the full amount of detail which would be needed to provide the complete articulation of the accounts. The appropriate number of each table on pages 659–63 is shown on the left of the diagram.

ARTICULATION OF AUSTRALIAN NATIONAL ACCOUNTS



Description of the accounts

The *national production account* is a consolidation of the production accounts of each sector. The production account is shown as receiving revenue from the sale of goods and services to final buyers; all intermediate goods and services are cancelled out, since they represent a cost to one producer to offset the revenue of the other. On the payments side are shown the payments of indirect taxes, and, since the accounts are presented from the point of view of the producing unit, the wages and salaries paid to employees. The balance is the gross operating surplus which is carried to the trading enterprises income appropriation account.

The *trading enterprises income appropriation account* is shown as receiving the gross operating surpluses from the national production account, and dividends, non-dwelling rent and interest from other sectors. The allocation of this total to depreciation allowances and to various transfer payments (taxes, dividends, interest, etc.) is shown on the appropriation side. All net income of unincorporated enterprises is treated as being transferred to persons. Any income of trading companies not distributed but retained for use in the business is shown as undistributed income and transferred to the national capital account either directly or by way of the overseas current account (when it accrues to non-residents).

The *financial enterprises income appropriation account* is in the main similar to the preceding account. There is, however, no operating surplus, as property income (which is treated as transfer income, not as income of factors of production) is the sole receipt.

The *personal current account* records all receipts on current account whether of factor incomes (wages and salaries) or transfer incomes (interest, etc., dividends, net business incomes, cash benefits from public authorities, and remittances from overseas). On the payments side are shown current payments for goods and services and transfer payments (taxes, interest, etc., remittances to overseas). The balance is transferred to the national capital account under the heading of saving.

The *public authorities current account* reflects a distinction between current and capital expenditure, which is necessarily arbitrary in some measure and has been made on the basis of excluding from the current account expenditure on public works and increase in stocks. Expenditure on public works is taken to include new buildings, construction, plant and machinery, and any replacement of assets charged to loan funds or capital works votes. It includes capital expenditure of public enterprises, including replacements of assets charged to depreciation reserves but not those charged directly to working expenses. It includes all expenditure on roads for which a satisfactory distinction between new works and maintenance cannot be made, but excludes all defence expenditure, which is included in the current account.

The income of public enterprises shown in this account is derived by deducting from their operating surplus any depreciation shown by these enterprises in their published accounts, except in the case of enterprises (e.g. railways and Postmaster-General's Department) whose accounts are included in the Commonwealth or State budgets and are for the present analyzed on the basis of these cash accounts in which depreciation is not deducted. The depreciation allowances set aside by the enterprises whose accounts are not included in Commonwealth or State budgets are shown in the capital account. As in the case of persons, all overseas gifts are included in the current account. These include gifts for international relief, technical assistance, etc., grants, and other expenditure in connection with the administration of Papua and New Guinea.

The *overseas current account* records all transactions of a current nature between Australian and overseas residents. It should be emphasized that this account is shown here from the point of view of overseas residents, i.e. receipts from Australia are shown as credits, and payments to Australia as debits. Australians temporarily overseas are regarded as residents, and visitors to Australia as non-residents.

Capital transactions of the four domestic sectors and the net deficit on current account with overseas are shown in the *national capital account*. On the receipts side are shown the savings of the various sectors—saving by enterprises, personal saving, the retained investment income of insurance funds, and the public authority surplus on current account. Net apparent capital inflow from overseas and withdrawal from monetary reserves is also reflected in the item 'deficit on current account with overseas'. On the payments side are shown the purchases by all sectors of new buildings and capital equipment and the increase in the value of stocks. The private component of capital expenditure includes new dwellings and major alterations to dwellings and expenditure of a capital nature by private non-profit institutions (churches, schools, clubs, etc.), but excludes motor vehicles for personal use and other durable consumer goods, which are included in personal consumption expenditure.

Estimates at constant prices

For certain types of economic analysis it is useful to examine estimates of the principal flows of goods and services in the economy revalued in such a way as to remove the direct effects of changes in their prices which have occurred between the years under review. Such estimates, conventionally described as 'at constant prices', are presented in Table 8 (at both current and average 1959-60 prices) for gross national product, gross national expenditure, personal consumption expenditure, and certain of their components.

Constant price estimates amount to an attempt to express every component item of expenditure as the product of a price and a quantity, instead of only as a value, and to substitute for the actual current prices the prices that ruled in the chosen base year. Such estimates can be made only on the basis of approximations and assumptions, and this should be borne in mind in the interpretation and use of the results.

Estimates of gross national expenditure at constant prices. Where possible, a direct revaluation is made of each item at constant prices instead of using the prices at which quantities are bought or consumed. However, where it is not possible to express the values in successive years as the product of prices and standard units of quantity (e.g. for many items of capital expenditure by public and private sectors, for which homogeneous and standard components of expenditure do not exist), the values are divided by an appropriate price index, or by a substitute index of cost of production based on materials and wages. The estimates resulting from the application of this method, therefore, have considerable limitations for many uses, for example in studies of productivity. A broadly similar treatment is applied to current expenditure by public authorities, including expenditure on defence.

The information available on which to base an estimate of changes in stocks at constant prices is very limited, and the estimate made is subject to an appreciable margin of error. The method used involves an adjustment for stock revaluation, arising out of the replacement during the year of trading stocks with equivalent new stocks different in value from those held at the beginning of the year.

Estimation of gross national product at constant prices. The essential nature of gross national product is that it is the value added to goods and services by productive activity in the economy. The measure of gross national product obtained by adding up the major forms of income, namely, wages and salaries and gross operating surplus, is not in itself the measure of a flow of goods and services, and in these terms gross national product cannot be expressed at constant prices since it has no units of quantity to be revalued.

Gross national product, however, is the difference between the value of output and the value of materials used in production, that is, the difference between the values of two flows of goods and services. By revaluing each of these flows it is possible to express, in these terms, gross national product at constant prices. This relationship has been used in the estimation of gross national product at constant prices in Table 8.

Part I. of *Australian National Accounts, National Income and Expenditure, 1948-49 to 1964-65* contains a fuller discussion of the conceptual problems involved in making these estimates, and Appendix B of that publication contains a brief account of the sources and methods used in preparing the estimates.

Reliability and future revisions

Estimates of national income and expenditure are necessarily prepared from a very wide range of information, some of which is available quickly, some of it with a delay of several years after the period to which it relates. Some of it is closely related to the desired national income concepts, while some of it is not completely satisfactory in various respects, including coverage, concepts and timing. Estimates, in particular for the most recent years, are therefore subject to revision.

This applies especially to estimates based on income tax statistics—income of companies, non-farm unincorporated enterprises, depreciation, and part of gross private fixed investment—which are subject to substantial revisions for the last two years, as tabulations of income tax statistics do not become available until about twenty-two months after the end of each financial year.

It is not possible to put precise limits on the degree of revision likely in any particular series, nor to state degrees of reliability in a statistical sense. These depend in large part on the range and quality of the basic statistical data. For illustrations of common causes of revisions reference should be made to *Australian National Accounts, National Income and Expenditure, 1948-49 to 1964-65*.

National accounts and tables

Items in tables 1 to 7 are consecutively numbered from 1 to 28, with or without the addition of a letter, and this system is used to identify the corresponding credit and debit entries in the accounts and as a key to the notes on pages 667-70. In some cases the items correspond exactly, while in other cases an entry in one table is the sum of two or more entries in other tables; here the total is given a number, and the components have a number and a letter. In the remaining type of case all entries are given the same number and a distinguishing letter, because in this group one item is not the sum of one or more entries. The relationship between these items can still be traced through because the sum of all credit entries must equal the sum of all debit entries.

TABLE 1
NATIONAL PRODUCTION ACCOUNT
(\$ million)

	1960-61	1961-62	1962-63	1963-64	1964-65
1 Wages, salaries, and supplements	7,420	7,639	8,064	8,795	9,821
Gross operating surplus of trading enterprises—					
2a Companies	1,869	1,948	2,209	2,461	2,692
2b Unincorporated enterprises	2,748	2,730	2,981	3,447	3,461
2c Dwellings owned by persons	569	642	730	822	896
2d Public enterprises	372	392	487	556	612
Gross national product at factor cost	12,978	13,351	14,471	16,081	17,482
3 Indirect taxes less subsidies	1,623	1,578	1,719	1,831	2,062
Gross national product	14,601	14,929	16,190	17,912	19,544
4 Imports of goods and services	2,578	2,180	2,588	2,837	3,439
National turnover of goods and services	17,179	17,109	18,778	20,749	22,983
Net current expenditure on goods and services—					
5 Personal consumption	9,282	9,576	10,248	11,002	11,834
6 Financial enterprises	184	191	199	217	241
7 Public authorities	1,403	1,536	1,633	1,793	2,055
Gross fixed capital expenditure—					
8 Private	2,388	2,295	2,529	2,819	3,274
9 Public enterprises	644	738	768	831	966
10 Public authorities	554	599	637	711	789
11 Increase in value of stocks	521	-205	319	120	608
12 Statistical discrepancy	66	-51	1	148	218
Gross national expenditure	15,042	14,679	16,334	17,641	19,985
13 Exports of goods and services	2,137	2,430	2,444	3,108	2,998
National turnover of goods and services	17,179	17,109	18,778	20,749	22,983

TABLE 2
TRADING ENTERPRISES INCOME APPROPRIATION ACCOUNT
(\$ million)

	1960-61	1961-62	1962-63	1963-64	1964-65
2 Gross operating surplus	5,558	5,712	6,407	7,286	7,661
15b, 17b Interest, e.c. and dividends received	93	94	109	119	126
18b Undistributed income accruing from overseas	7	9	9	15	15
<i>Total receipts</i>	<i>5,658</i>	<i>5,815</i>	<i>6,525</i>	<i>7,420</i>	<i>7,802</i>
14a Depreciation allowances	1,125	1,183	1,260	1,355	1,445
15a Interest, etc., paid	475	535	587	666	761
Company income—					
16a Income tax payable	520	519	582	675	n.a.
17a Dividends payable	416	470	506	560	n.a.
18a Undistributed income	412	368	477	513	n.a.
<i>Total company income.</i>	<i>1,348</i>	<i>1,357</i>	<i>1,565</i>	<i>1,748</i>	<i>1,889</i>
19 Unincorporated enterprises income	2,119	2,082	2,306	2,740	2,711
20 Personal income from dwelling rent	336	379	444	504	544
21a Public enterprises income	255	273	363	407	452
<i>Total outlay</i>	<i>5,658</i>	<i>5,815</i>	<i>6,525</i>	<i>7,420</i>	<i>7,802</i>

TABLE 3
FINANCIAL ENTERPRISES INCOME APPROPRIATION ACCOUNT
(\$ million)

	1960-61	1961-62	1962-63	1963-64	1964-65
15d Interest, etc. received	748	818	877	1,003	1,127
17d, 18d Dividends received and undistributed income accruing from overseas	29	31	36	41	48
<i>Total receipts</i>	<i>777</i>	<i>849</i>	<i>913</i>	<i>1,044</i>	<i>1,175</i>
14b Depreciation allowances	11	13	15	16	18
6 Net current expenditure on goods and services	184	191	199	217	241
15c Interest paid	223	266	272	302	356
Company income—					
16b Income tax payable	42	38	43	51	n.a.
17c Dividends payable	45	46	53	52	n.a.
18c Undistributed income	23	18	21	48	n.a.
<i>Total company income.</i>	<i>110</i>	<i>102</i>	<i>117</i>	<i>151</i>	<i>153</i>
21b Public enterprises income	91	90	96	111	122
22 Retained investment income of life insurance funds, etc.	158	187	214	247	285
<i>Total outlay</i>	<i>777</i>	<i>849</i>	<i>913</i>	<i>1,044</i>	<i>1,175</i>

TABLE 4
PERSONAL CURRENT ACCOUNT
(\$ million)

	1960-61	1961-62	1962-63	1963-64	1964-65
1 Wages, salaries and supplements	7,420	7,639	8,064	8,795	9,821
15f Interest, etc. received	315	367	395	422	491
17e Dividends	317	344	352	406	435
19a Unincorporated enterprises income—Farm	987	926	1,106	1,424	1,281
19b Other	1,132	1,156	1,200	1,316	1,430
20 Income from dwelling rent	336	379	444	504	544
23b Remittances from overseas	69	71	78	113	127
25 Cash benefits from public authorities	834	915	952	1,046	1,100
<i>Total receipts</i>	<i>11,410</i>	<i>11,797</i>	<i>12,591</i>	<i>14,026</i>	<i>15,229</i>
5 Personal consumption expenditure	9,282	9,576	10,248	11,002	11,834
15e Interest paid	192	182	194	226	247
16c Income tax payable	1,006	984	1,088	1,272	1,513
16d Estate and gift duties	103	115	122	137	140
23a Remittances overseas	54	53	60	69	76
24 Saving	773	887	879	1,320	1,419
<i>Total outlay</i>	<i>11,410</i>	<i>11,797</i>	<i>12,591</i>	<i>14,026</i>	<i>15,229</i>

TABLE 5
PUBLIC AUTHORITIES CURRENT ACCOUNT
(\$ million)

	1960-61	1961-62	1962-63	1963-64	1964-65
3a Indirect taxes	1,693	1,668	1,798	1,941	2,158
16e Income tax, estate and gift duties received	1,715	1,768	1,740	2,009	2,433
15h Interest, etc. received	69	76	71	80	100
21 Public enterprises income	346	363	459	518	574
<i>Total receipts</i>	<i>3,823</i>	<i>3,875</i>	<i>4,068</i>	<i>4,548</i>	<i>5,265</i>
7 Net current expenditure on goods and services	1,403	1,536	1,633	1,793	2,055
3b Subsidies	70	90	79	110	96
15g Interest, etc. paid	370	400	437	471	510
23c Oversea grants	46	53	66	76	96
25 Cash benefits to persons	834	915	952	1,046	1,100
26 Grants towards private capital expenditure	8	12	11	10	30
27 Surplus on current account	1,092	869	890	1,042	1,378
<i>Total outlay</i>	<i>3,823</i>	<i>3,875</i>	<i>4,068</i>	<i>4,548</i>	<i>5,265</i>

NATIONAL ACCOUNTS

TABLE 6
OVERSEA CURRENT ACCOUNT
(\$ million)

	1960-61	1961-62	1962-63	1963-64	1964-65
4a Imports f.o.b.	2,066	1,710	2,076	2,250	2,755
4b Transportation	331	283	313	351	400
4c Travel	83	82	90	102	113
4d Government transactions	51	54	56	68	86
4e Other goods and services	47	51	53	66	85
4 Total imports of goods and services	2,578	2,180	2,588	2,837	3,439
15j, 17g Interest, etc. paid and dividends payable and profits remitted overseas	213	231	254	263	280
18f Undistributed income accruing to oversea residents	114	66	106	130	130
23a Personal remittances overseas . . .	54	53	60	69	76
23c Public authority grants	46	53	66	76	96
Total credits to non-residents . . .	3,005	2,583	3,074	3,375	4,021
13a Exports f.o.b.	1,851	2,134	2,130	2,739	2,586
13b Transportation	158	157	167	194	220
13c Travel	30	34	33	41	51
13d Government transactions	40	45	47	62	59
13e Other goods and services	58	60	67	72	82
13 Total exports of goods and services	2,137	2,430	2,444	3,108	2,998
15i, 17f Interest, etc. received and dividends receivable from overseas	55	71	67	80	97
18e Undistributed income accruing from over- seas	7	9	9	15	15
23b Personal remittances from overseas .	69	71	78	113	127
28 Oversea balance on current account. . .	737	2	476	59	784
Total debits to non-residents . . .	3,005	2,583	3,074	3,375	4,021

TABLE 7
NATIONAL CAPITAL ACCOUNT
(\$ million)

	1960-61	1961-62	1962-63	1963-64	1964-65
14 Depreciation allowances . . .	1,136	1,202	1,275	1,371	1,463
16f, 17h Increase in dividend and income tax provisions . . .	-52	-103	117	149	16
18g Undistributed company income accruing to residents . . .	321	320	392	431	480
22 Retained investment income of life insurance funds, etc. . .	158	187	214	247	285
24 Personal saving . . .	773	887	879	1,320	1,419
26 Public authority grants towards private capital expenditure . .	8	12	11	10	30
27 Public authorities surplus on current account . . .	1,092	869	890	1,042	1,378
Deficit on current account with overseas—					
28a Withdrawal from oversea monetary reserves(a) . . .	80	-178	-148	-459	294
28b Net apparent capital inflow . .	657	180	624	518	490
<i>Total capital funds accruing .</i>	<i>4,173</i>	<i>3,376</i>	<i>4,254</i>	<i>4,629</i>	<i>5,855</i>
Gross fixed capital expenditure—					
8a Private—Dwellings . . .	656	587	642	748	880
8b Other new building . . .	477	458	521	571	614
8c All other . . .	1,254	1,250	1,367	1,500	1,780
9 Public enterprises . . .	644	738	768	831	966
10 Public authorities . . .	554	599	637	711	789
<i>Total gross fixed capital expenditure . . .</i>	<i>3,586</i>	<i>3,632</i>	<i>3,934</i>	<i>4,361</i>	<i>5,029</i>
11a Increase in value of stocks—Farm .	71	-89	88	-26	98
11b Other . . .	450	-116	231	146	510
<i>Total use of funds . . .</i>	<i>4,107</i>	<i>3,427</i>	<i>4,253</i>	<i>4,481</i>	<i>5,637</i>
12 Statistical discrepancy . . .	66	-51	1	148	218
<i>Total capital funds accruing .</i>	<i>4,173</i>	<i>3,376</i>	<i>4,254</i>	<i>4,629</i>	<i>5,855</i>

(a) Minus sign (-) indicates an addition to reserves.

TABLE 8
VALUE OF MAIN AGGREGATES AT CURRENT AND AVERAGE 1959-60 PRICES
 (\$ million)

	1960-61	1961-62	1962-63	1963-64	1964-65
AT CURRENT PRICES					
Personal consumption expenditure	9,282	9,576	10,248	11,002	11,834
Current expenditure by financial enterprises and public authorities	1,587	1,727	1,832	2,010	2,296
Gross fixed capital expenditure—					
Public	1,198	1,337	1,405	1,542	1,755
Private—Dwellings	656	587	642	748	880
Other	1,732	1,708	1,887	2,071	2,394
Increase in value of stocks	521	-205	319	120	608
Statistical discrepancy	66	-51	1	148	218
Total gross national expenditure	15,042	14,679	16,334	17,641	19,985
Gross national expenditure after stock valuation adjustment	15,066	14,717	16,248	17,520	19,817
Plus Exports of goods and services	2,137	2,430	2,444	3,108	2,998
Less Imports of goods and services	2,578	2,180	2,588	2,837	3,439
Gross national product after stock valuation adjustment	14,625	14,967	16,104	17,791	19,376
AT AVERAGE 1959-60 PRICES(a)					
Personal consumption expenditure	8,916	9,130	9,717	10,179	10,571
Current expenditure by financial enterprises and public authorities	1,531	1,625	1,693	1,758	1,922
Gross fixed capital expenditure—					
Public	1,153	1,235	1,281	1,367	1,489
Private—Dwellings	627	549	591	676	770
Other	1,690	1,652	1,817	1,968	2,211
Statistical discrepancy	64	-48	1	136	193
Gross national expenditure after stock valuation adjustment	14,511	13,981	15,327	16,077	17,564
Plus Exports of goods and services	2,258	2,547	2,506	2,923	2,948
Less Imports of goods and services	2,645	2,237	2,717	2,976	3,525
Gross national product after stock valuation adjustment	14,124	14,291	15,116	16,024	16,987

(a) See page 658.

TABLE 9
RELATIONSHIP OF MAIN AGGREGATES
(\$ million)

	1960-61	1961-62	1962-63	1963-64	1964-65
Net current expenditure on goods and services	10,869	11,303	12,080	13,012	14,130
Gross fixed capital expenditure	3,586	3,632	3,934	4,361	5,029
Increase in value of stocks	521	-205	319	120	608
Statistical discrepancy	66	-51	1	148	218
Gross national expenditure	15,042	14,679	16,334	17,641	19,985
Plus Exports of goods and services	2,137	2,430	2,444	3,108	2,998
National turnover of goods and services	17,179	17,109	18,778	20,749	22,983
Less Imports of goods and services	2,578	2,180	2,588	2,837	3,439
Gross national product	14,601	14,929	16,190	17,912	19,544
Less Indirect taxes less subsidies	1,623	1,578	1,719	1,831	2,062
Gross national product at factor cost	12,978	13,351	14,471	16,081	17,482
Less Depreciation allowances of trading enterprises	1,125	1,189	1,260	1,355	1,445
Net national product	11,853	12,162	13,211	14,726	16,037
Less Net income payable overseas	265	217	284	298	298
National income	11,588	11,945	12,927	14,428	15,739
Plus Net income payable overseas	265	217	284	298	298
Net national product	11,853	12,162	13,211	14,726	16,037
Less Net operating surplus of companies and public enterprises	1,687	1,741	2,049	2,303	2,533
Less Interest, etc. paid by unincorporated enterprises and dwellings owned by persons	291	321	348	384	428
Plus Interest received by persons	315	367	395	422	491
Dividends received by persons	317	344	352	406	435
Cash benefits to persons	834	915	952	1,046	1,100
Remittances from overseas	69	71	78	113	127
Personal income	11,410	11,797	12,591	14,026	15,229
Less Income tax payable and estate and gift duties	1,109	1,099	1,210	1,409	1,653
Personal disposable income	10,301	10,698	11,381	12,617	13,576

TABLE 10
MAIN AGGREGATES AT CURRENT PRICES, 1948-49 TO 1964-65
(\$ million)

Year	1 Personal consumption	2 Net current expenditure on goods and services by public authorities and financial enterprises	3 Private gross fixed capital expenditure	4 Public gross fixed capital expenditure	5 Increase in value of stocks	6 Statistical discrepancy	7 (1 to 6) Gross national expenditure
1948-49	2,992	393	498	283	148	-6	4,308
1949-50	3,442	468	644	399	315	44	5,312
1950-51	4,185	634	919	576	531	-31	6,814
1951-52	4,986	867	1,128	793	775	97	8,646
1952-53	5,289	997	1,136	775	-181	-199	7,817
1953-54	5,807	958	1,309	797	42	-80	8,833
1954-55	6,310	1,029	1,469	846	278	91	10,023
1955-56	6,780	1,152	1,624	902	345	-18	10,785
1956-57	7,238	1,202	1,690	931	49	-107	11,003
1957-58	7,592	1,242	1,839	974	2	22	11,671
1958-59	7,985	1,358	1,896	1,072	332	-69	12,574
1959-60	8,761	1,484	2,161	1,165	236	156	13,963
1960-61	9,282	1,587	2,388	1,198	521	66	15,042
1961-62	9,576	1,727	2,295	1,337	-205	-51	14,679
1962-63	10,248	1,832	2,529	1,405	319	1	16,334
1963-64	11,002	2,010	2,819	1,542	120	148	17,641
1964-65	11,834	2,296	3,274	1,755	608	218	19,985

Year	8 Exports of goods and services	9 Imports of goods and services	10 (7 + 8 - 9) Gross national product	11 National income	12 Personal income	13 Wages, salaries and supple- ments	14 Net income payable overseas
1948-49	1,141	978	4,471	3,735	3,746	2,169	81
1949-50	1,302	1,259	5,355	4,409	4,429	2,467	102
1950-51	2,084	1,724	7,174	6,057	6,058	3,103	120
1951-52	1,477	2,437	7,686	6,402	6,328	3,921	126
1952-53	1,845	1,309	8,353	7,032	7,001	4,238	119
1953-54	1,784	1,598	9,019	7,465	7,267	4,512	159
1954-55	1,693	1,975	9,741	8,008	7,791	4,937	163
1955-56	1,725	1,947	10,563	8,629	8,473	5,409	189
1956-57	2,173	1,728	11,448	9,301	9,055	5,722	189
1957-58	1,829	1,915	11,585	9,176	9,006	5,930	187
1958-59	1,844	1,946	12,472	9,877	9,700	6,211	254
1959-60	2,120	2,265	13,818	10,963	10,640	6,887	284
1960-61	2,137	2,578	14,601	11,588	11,410	7,420	265
1961-62	2,430	2,180	14,929	11,945	11,797	7,639	217
1962-63	2,444	2,588	16,190	12,927	12,591	8,064	284
1963-64	3,108	2,837	17,912	14,428	14,026	8,795	298
1964-65	2,998	3,439	19,544	15,739	15,229	9,821	298

Description of items in the National Accounts

Tables 1 to 7

Item 1. Wages, salaries and supplements. Payments in the nature of wages and salaries as defined for pay-roll tax, including allowances for income in kind (board and quarters, etc.), together with supplements to wages, and pay and allowances of members of the forces. In addition to wages and salaries paid by employers subject to pay-roll tax, this item includes wages and salaries paid by employers not subject to pay-roll tax, based on estimates of employment and average earnings. Supplements consist of employers' contributions to pension and superannuation funds, direct payments of pensions and retiring allowances, and amounts paid as workers' compensation for injuries. Pay and allowances of members of the forces consist of active pay, field allowances, subsistence allowances, dependants' allowances, and the value to the members of the forces of food, clothing, normal medical attention, etc. supplied in kind.

Item 2. Gross operating surplus of trading enterprises. The operating surplus, before deduction of depreciation provisions, dividends, interest, rent and royalties, and direct taxes payable of all trading enterprises operating in Australia. Trading enterprises include all companies, public enterprises, partnerships, and self-employed persons engaged in the production of goods and services for sale, but exclude financial enterprises. Public trading enterprises are government undertakings which attempt to recover all, or a substantial part, of their costs through charges made to the public for the sale of goods and services. All owners of dwellings are included whether they let the dwellings or occupy them themselves. Trading enterprises' gross operating surplus is shown separately for companies (item 2a), unincorporated enterprises (item 2b), dwellings owned by persons (item 2c), and public enterprises (item 2d).

Item 3. Indirect taxes less subsidies. Indirect taxes comprise taxes on purchases, sales or other transactions, or on the ownership of property, etc., paid by enterprises, public authorities and persons. They include licence fees in respect of rights conferred, such as liquor licences, etc. Subsidies are transfer payments made with the object of assisting certain industries. Such payments may take the form of bounties on goods produced, subsidies to producers to ensure a guaranteed price, payments to transport undertakings to permit a reduction of freights on certain classes of goods, assistance to producers, etc.

Item 4. Imports of goods and services. The value of goods imported from overseas and amounts payable overseas for services. In Table 6 this item is sub-divided into the following components.

Item 4a. Imports f.o.b. Recorded trade figures adjusted for the purpose of balance of payments estimates. The principal adjustments are the addition of unrecorded imports, including ships and aircraft for use on overseas routes, the subtraction of films imported on a rental basis, imports of gold, goods for repair and goods intended for re-export, and the deduction of a 'valuation adjustment' representing the excess of the recorded value of imports (based on value for duty) over the estimated selling price to the importer as shown on invoices accompanying customs entries:

Item 4b. Transportation. Freight payable to foreign carriers on goods imported into Australia and transported between Australian ports, fares payable in Australia, the overseas expenditure of Australian ships, remittances to foreign airlines, and premiums (less claims) on marine insurance payable overseas on imports into Australia, less the net earnings on marine insurance business undertaken by Australian firms in respect of both exports and imports.

Item 4c. Travel. Net remittances in the form of travellers' cheques, etc. by Australians visiting overseas for pleasure and for business.

Item 4d. Government transactions. Expenditure overseas for defence, including the pay and allowances of personnel serving overseas, expenditure overseas on diplomatic, consular and trade representation, contributions to international organizations, government pensions paid abroad, overseas expenditure on immigration, and miscellaneous payments for services.

Item 4e. Other goods and services. Cinema and television film rentals payable overseas, expenses of Australian firms transacting business overseas, commissions, brokerage, etc., and the value of repairs on goods previously exported for repair and return, etc.

Item 5. Net current expenditure on goods and services—personal consumption. Net expenditure on goods and services for purposes of consumption by persons and private non-profit making bodies serving persons. This item excludes the purchase of dwellings and capital expenditure by non-profit making bodies (included in item 8), and maintenance of dwellings (treated as expenses of private enterprises), but includes personal expenditure on motor vehicles and other durable goods and the imputed rent of owner-occupied dwellings. Purchase of motor vehicles is the estimated expenditure by persons on new motor vehicles, secondhand motor vehicles purchased

from business enterprises and public authorities, and net dealers' margins on purchases and sales of motor vehicles within the personal sector. Motor vehicles include cars, station wagons, motor cycles, and motor scooters bought on personal account. The value of income in kind (e.g. food produced and consumed on farms, board and lodging provided free to employees) is included in both personal income and personal consumption expenditure, but goods chargeable to business (expense) accounts are excluded.

Item 6. Net current expenditure on goods and services—financial enterprises. The current expenditure of banks, instalment credit companies, short-term money market companies, and building societies after deduction of bank charges to customers. Charges by instalment credit companies are treated as interest receipts and therefore not offset against expenditure. This item includes wages, salaries and supplements, indirect taxes, and other payments for goods and services. Public financial enterprises are government businesses (mainly banks, including the Reserve Bank) which operate in a manner analogous to other financial enterprises, in that their current expenditure is largely financed by the net receipt of interest. The interest received by government housing authorities is treated as a receipt by public financial enterprises, but their other receipts, including net profit on sale of houses, and all their expenditure, are included in those of public trading enterprises.

Item 7. Net current expenditure on goods and services—public authorities. Expenditure by public authorities (not public enterprises) which does not result in the creation of fixed tangible assets or in the acquisition of land, buildings or secondhand goods (other than imported). It comprises expenditure on wages, salaries, and supplements, and on goods and services other than fixed assets and stocks; fees, etc., charged by public authorities for goods sold and services rendered are offset against purchases. Net expenditure overseas by public authorities and purchases from public enterprises are included. All expenditure on defence is classified as current.

Item 8. Gross fixed capital expenditure—private. Expenditure on fixed assets whether for additions or replacements. This item includes expenditure on dwellings (item 8a), other building and construction (item 8b), and vehicles, plant, machinery, etc. (item 8c). It includes also expenditure on secondhand assets (other than houses purchased from public authorities) as well as new assets, less sales of existing assets. Expenditure on ordinary repair and maintenance of fixed assets is excluded as being chargeable to current account. Major additions are, however, regarded as capital expenditure. New dwellings purchased by persons from public housing authorities are included in private capital expenditure.

Item 9. Gross fixed capital expenditure—public enterprises. Expenditure on fixed assets whether for additions or replacements, including wages and salaries paid by public enterprises in connection with capital works.

Item 10. Gross fixed capital expenditure—public authorities. Expenditure on fixed assets whether for additions or replacements other than for defence purposes. Because it has not been possible to make a satisfactory dissection, all expenditure on roads, including maintenance, is classified as fixed capital expenditure. Expenditure on housing, included in this item, includes the estimated expenditure on construction of dwellings for rental purposes and hostels for migrants and others, but excludes houses built for sale, which are included in private capital expenditure. Advances by War Service Homes Division and other authorities for financing home purchase schemes are also excluded.

Item 11. Increase in value of stocks. The change in book value of non-farm stocks held by trading enterprises and public authorities (item 11b) and the change in the value of farm stocks (item 11a).

Item 12. Statistical discrepancy. The difference between the sum of the direct estimates of gross national product and imports of goods and services on the one hand and the sum of the estimates of components of gross national expenditure and exports of goods and services on the other hand. Conceptually these two totals are the same. Inclusion of the discrepancy on the expenditure side of the national production account implies nothing as to the relative accuracy of the estimates of gross national product and expenditure. Similarly its inclusion in the capital account does not imply that estimates in this table are less accurate than those in other tables, or that capital expenditure estimates are less accurate than estimates on the receipts side of this account.

Item 13. Exports of goods and services. The value of goods exported overseas and receipts from overseas for other goods and services. In Table 6 this item is sub-divided into the following components.

Item 13a. Exports f.o.b. The recorded trade figures adjusted for balance of payments purposes. The adjustments are similar to those made to the recorded import figures but no change is made to the basis of valuation. The adjustment for unrecorded exports includes exports of uranium ores.

Item 13b. Transportation. The expenditure of overseas carriers in Australian ports, the overseas earnings of ships owned or chartered by Australian operators, the remittances from overseas to Australian domestic and international airline operators.

Item 13c. Travel. Net receipts of travellers' cheques, etc. from persons visiting Australia for pleasure and for business.

Item 13d. Government transactions. Receipts for services rendered by the Australian Government to other governments and other payments in Australia by foreign governments on defence and other projects, on diplomatic, consular and trade representation, and for pensions paid in Australia.

Item 13e. Other goods and services. The value of Australian production of gold less net industrial usage, business expenses of overseas firms in Australia, and commissions, brokerage etc.

Item 14. Depreciation allowances. The financial provisions made for depreciation which are deducted to obtain net income. The estimates represent, in the main, amounts allowed under income tax legislation, but include also the estimated depreciation on tenanted and owner-occupied dwellings owned by persons and provisions made by public enterprises. This item is divided into depreciation allowances of trading enterprises (item 14a) and of financial enterprises (item 14b).

Item 15. Interest, etc. Comprises interest, non-dwelling rent and royalties. This item appears in most accounts as receipts and payments of interest, etc. but in the case of some entries the amounts are combined with dividends and overseas profits. The item is shown net of intra-sector receipts and payments. Payment of interest, etc. by public enterprises is included in item 15g. Payment of interest, etc. by trading enterprises (item 15a) includes interest charged on borrowings for the purchase of a house by persons, which is treated as an appropriation from the gross operating surplus of dwellings owned by persons. Non-dwelling rent includes only actual payments. It is estimated net of the expenses of the owner of the premises on rates, maintenance, etc., which are treated as working expenses of the enterprises renting the building. Royalties include mining and forestry royalties paid to public authorities and royalties and fees for use of trade marks, patents, etc. paid overseas.

Item 16. Income tax, estate and gift duties. Income tax payable by trading and financial companies (items 16a and 16b) and persons (item 16c) are amounts payable at rates of taxation applicable in each year. Income tax payable by companies in respect of the most recent year's income is estimated on the basis of rates of tax applicable in respect of the preceding year's income. The difference between the amounts of income tax payable and the cash receipts by public authorities (part of item 16e) is included in item 16f. Income tax payable by persons (item 16c) includes the total income tax payable by individuals on all forms of income whether wages, business income or property income. Estate and gift duties (item 16d) are the amounts actually paid by persons in that year.

Item 17. Dividends. All receipts and payments of dividends, including dividends payable overseas and the remitted profits of Australian branches of overseas enterprises. Dividends payable (items 17a and 17c) are the dividends declared by trading and financial companies in respect of the year (including an estimate of dividends to be declared in respect of the most recent year). Receipts of dividends (other than dividends receivable from overseas subsidiaries) are cash receipts, and the difference between the amounts payable and received is included in item 17h. The items are shown net of intra-sector receipts and payments.

Item 18. Undistributed income. The undistributed income of companies comprising trading enterprises (item 18a) and financial enterprises (item 18c) is the balance of total company income, including profits receivable from overseas (items 18b and 18d) after deducting income tax and dividends payable, and is equal to the sum of undistributed income accruing to overseas residents (item 18f) and undistributed company income accruing to residents (item 18g). Profits receivable from overseas is the unremitted part of profits earned by overseas branches of Australian companies and undistributed profits of overseas subsidiaries.

Item 19. Unincorporated enterprises income. The gross operating surplus of unincorporated enterprises less interest, etc. paid and depreciation allowances. It comprises the income of farm unincorporated enterprises (item 19a) and the income of all other unincorporated enterprises (item 19b).

Item 20. Personal income from dwelling rent. The gross operating surplus of dwellings owned by persons less interest, etc. paid and depreciation allowances.

Item 21. Public enterprises income. Includes income of public trading enterprises (item 21a) and income of public financial enterprises (item 21b). For trading enterprises it is equal to gross operating surplus after the deduction of depreciation allowances; for financial enterprises it is

the net income after depreciation allowances, interest paid, and net current expenditure on goods and services by government banks are deducted from total receipts of interest and non-dwelling rent. Depreciation allowances deducted in arriving at the income of public trading enterprises are those shown in their published accounts, except in the case of enterprises whose accounts are included in the Commonwealth or State budgets and are analysed on the basis of their cash accounts in which depreciation is not deducted. In particular, no amount is included for the Post Office or most railways, since cash accounts for these enterprises have been used.

Item 22. Retained investment income of life insurance funds, etc. Total dividends, interest, etc. received by life insurance and superannuation funds, less depreciation allowances, income tax and dividends payable, and the undistributed income of non-mutual life insurance companies.

Item 23. Oversea gifts. All transfers to or from overseas on public authority or private account which are not payments for goods and services or payments of dividends, interest, etc.

Item 23a. Personal remittances overseas. Gifts of money by resident persons and private institutions, payments for sustenance, and transfers of emigrants' funds and legacies from Australia to overseas, together with the value of goods exported as personal effects and gifts.

Item 23b. Personal remittances from overseas. Gifts of money received from non-resident persons and private institutions, receipts for sustenance, and transfers of immigrants' funds and legacies from overseas to Australia, together with the value of goods imported as personal effects and gifts.

Item 23c. Public authority overseas grants. Grants, to, and payments made on behalf of, the Territories of Papua and New Guinea, and expenditure overseas in respect of technical assistance and relief under the Colombo Plan and United Nations projects. Payments to United Nations and other organizations due by virtue of membership of these organizations are included in net current expenditure on goods and services.

Item 24. Personal saving. The excess of personal income over the sum of personal consumption expenditure, interest paid, income tax payable and estate and gift duties paid, and remittances overseas. It includes saving through life insurance and superannuation funds (defined as premiums, etc. paid less claims, etc. received and administrative expenses of life insurance offices) and the increase in assets of marketing authorities. It includes also changes in holdings of cash and securities, the net increase in bank deposits less advances, the reduction in the outstanding advances of instalment credit companies to persons and unincorporated enterprises, and the increase in the equity of persons in dwellings and in capital equipment, buildings and stocks of unincorporated enterprises. Personal saving is estimated as the balancing item in the personal current account.

Item 25. Cash benefits. Current transfers to persons from public authorities in return for which no services are rendered or goods supplied. Principal components are scholarships; hospital, medical, pharmaceutical, maternity, sickness, and unemployment benefits; child endowment; widows', age, invalid, and repatriation pensions; and attendance money for waterside workers.

Item 26. Grants towards private capital expenditure. Grants to meet part of the costs of private capital expenditure, e.g. Commonwealth Home Savings grants, grants towards construction of science laboratories in private schools and of houses for aged persons, etc.

Item 27. Public authorities surplus on current account. The excess of current revenue, including income of public enterprises, over current outlay. Current outlay includes current expenditure on goods and services, as defined in item 7, and transfer payments (interest, cash benefits, subsidies, grants towards private capital expenditure, and overseas grants). The surplus is transferred to the capital account where it is shown as part of total funds available for financing capital outlay.

Item 28. Oversea balance on current account. The excess of payments to the rest of the world on current account over receipts from the rest of the world on current account. In the national capital account it is shown divided into drawings on Australia's overseas monetary reserves (item 28a) and net apparent capital inflow (item 28b).

CHAPTER 20

PRIVATE FINANCE

Further information on the subjects dealt with in this chapter is contained in the annual bulletins *Banking and Currency* and *Insurance and Other Private Finance*. Current information is contained in the *Quarterly Summary of Australian Statistics*, the *Monthly Review of Business Statistics*, the *Digest of Current Economic Statistics* (monthly), and the monthly mimeographed statements *Banking Statistics* (bulletin and preliminary statement), *Savings Bank Statistics* (bulletin and preliminary statement), *Australian Life Insurance Statistics*, and *Finance Companies: Australia*. The annual mimeographed bulletin *Australian Fire, Marine and General Insurance Statistics* contains the latest information available on the subject of general insurance. Other relevant mimeographed statements are: *Finance Companies: July 1964 to October 1965*; *Instalment Credit for Retail Sales*; *Unit Trusts, Land Trusts, and Mutual Funds*; *New Capital Raisings by Companies in Australia*; and *Capital and Maintenance Expenditure by Private Business in Australia*—quarterly; *Government Pension and Superannuation Schemes*, 1963–64; *Survey of Private Pension and Retiring Allowance Schemes*, 1962–63; *Survey of Selected Large Private Pension Funds*, 1964–65, and *Registered Building Societies*, 1963–64. Preliminary monthly statements *Instalment Credit for Retail Sales* and preliminary estimates of *New Capital Raisings* are issued also.

CURRENCY

Pre-decimal currency

Until 13 February 1966 Australian currency was based on the British unit, which is the pound (£) divided into 20 shillings (s.) each of 12 pence (d.). When the Australian currency was introduced in 1909 the Australian pound was specified as equivalent to 123.27447 grains of gold $\frac{11}{12}$ ths fine or 113 002 grains of fine gold and, until the depression in 1930, was identical with the pound sterling. There was a gradual depreciation of the Australian pound in terms of sterling from the beginning of 1930 until 3 December 1931 when it was stabilized at the rate of £125 Australian = £100 sterling. This relationship has been maintained until the present time. Following the depreciation no action was taken to define the value of the Australian pound in terms of gold until 5 August 1947 when the Australian Government advised the International Monetary Fund, in terms of the membership agreement, that the par value of the Australian pound was 2.86507 grams (44.2148 grains) of fine gold. From 18 September 1949 this was reduced to 1.99062 grams (30.720 grains) of fine gold. It remained unchanged until the introduction of decimal currency (see below).

When the Commonwealth was established in 1901, the currency in Australia consisted of United Kingdom gold, silver and bronze coins, notes issued by the banks, and Queensland Treasury notes. Queensland Treasury notes were in circulation in Queensland only, having superseded bank notes in that State after the 1893 crisis. Under the Commonwealth Constitution the control of currency, coinage and legal tender and the issue of paper money was vested in the Commonwealth. The Commonwealth assumed these powers by enacting the *Coinage Act* 1909 and the *Australian Notes Act* 1910.

Decimal currency

Decimal currency was introduced into Australia on 14 February 1966. The new system is based on a major unit—the dollar—equal to ten shillings in the old currency. The minor unit—the cent—is one hundredth part of the major unit and is equal to 1.2 pence. The par value of the Australian dollar, under the terms of the International Monetary Fund, was established at 0.99531 grams of fine gold.

The official changeover arrangements provide for a dual currency and for a transition period of eighteen months to two years following the changeover. In broad terms, the main features of the transition period are that (i) banking business will be conducted entirely in decimal currency, (ii) monetary machines will be progressively converted to \$ c operation, (iii) some businesses will operate in £ s. d. while others will operate in decimal currency, and (iv) £ s. d. and \$ c notes and coins will be interchangeable.

Legislation

Commonwealth. The *Currency Act* 1963 provided for (i) the introduction of a decimal currency system, (ii) established the dollar as the new monetary unit, (iii) established its relationship to the system of pounds, shillings and pence, (iv) settled the denominations and composition of the new decimal coins, (v) furnished the Treasurer with certain powers to effect the transition to the decimal currency system, and (vi) gave statutory effect to the appointment of the Decimal Currency Board. The Act made no provision for the transition period.

During 1965 the following legislation was enacted by the Commonwealth Parliament: the *Decimal Currency Board Act* 1965 (No. 94 of 1965); the *Currency Act* 1965 (No. 95 of 1965); the *Reserve Bank Act* 1965 (No. 96 of 1965); and a number of miscellaneous amending Acts. The sections of the *Currency Act* 1963 dealing with the Decimal Currency Board were renamed as the *Decimal Currency Board Act* 1965. The other provisions of the *Currency Act* 1963 were repealed by the *Decimal Currency Board Act* 1965, and were re-enacted, with amendment, as the *Currency Act* 1965. The *Currency Act* 1965 re-enacted the repealed parts of the *Currency Act* 1963, with some amendments, repealed the *Coinage Act* 1909-1947 and provided for the circumstances of the dual-currency transition period following the changeover. The *Reserve Bank Act* 1965 amended the *Reserve Bank Act* 1959 (the Principal Act) by providing for the denominations and specifications of the new dollar notes, and that the existing and the new notes will be legal tender for amounts of £ s.d. or \$ c. A number of money references in other Commonwealth laws needed specific amendment—that is, where the exact conversion provided for by the *Currency Act* 1965, in the 'blanket provision' of section 10, would not be appropriate. About thirty Acts required revision in this way (*see* pages 70-5).

State. While the 'blanket provision' referred to above provides that a reference to an amount of £ s.d. in a law of the Commonwealth will be construed after the changeover as a reference to the exact \$ c equivalent, this provision does not extend to State Acts. Each State has therefore passed legislation substituting amounts of \$ c for amounts of £ s.d. in State Acts.

Relationship between £ s.d. and \$ c

The relationship between the £ s.d. and decimal currency systems is established by the *Currency Act* 1965. The relationship is:

£1 = \$2 1s. = 10 cents 1d. = 5/6 cent

This provides the basis for conversion of amounts from one currency to the other. Problems in conversion arise, however, because there is a difference in value between the minor units (the penny and the cent) in the two systems, and because, for certain purposes, it is not practicable to use fractions of a cent or of a penny. To meet these problems, the *Currency Act* 1965 includes a table showing the whole-cent conversion of each pence amount up to and including elevenpence. The following table shows both exact and whole-cent conversions of pence amounts.

Pence	Exact cents	Whole cents	Difference in cents	
			+	-
1	$\frac{5}{6}$	1	$\frac{1}{6}$	
2	$1\frac{1}{3}$	2	$\frac{1}{3}$	
3	$2\frac{1}{2}$	2		$\frac{1}{2}$
4	$3\frac{1}{3}$	3		$\frac{2}{3}$
5	$4\frac{1}{6}$	4		$\frac{5}{6}$
6	5	5	..	..
7	$5\frac{5}{6}$	6	$\frac{1}{6}$	
8	$6\frac{2}{3}$	7	$\frac{1}{3}$	
9	$7\frac{1}{2}$	8	$\frac{1}{2}$	
10	$8\frac{1}{3}$	8		$\frac{1}{3}$
11	$9\frac{1}{6}$	9		$\frac{5}{6}$
12	10	10	..	..
Total differences			$1\frac{1}{2}$	$1\frac{1}{2}$

The use of the whole-cent conversion is prescribed in the following circumstances:

- where an amount of £ s.d. is payable before the changeover, but is paid after that day in \$ c;
- where, after the changeover, an amount of £ s.d. is paid by cheque or other bill of exchange or promissory note (which must be in terms of \$ c);

- (c) where an amount of £ s.d. is payable before the close of the transition period, but is paid after that period—in \$ c; and
- (d) where an amount of £ s.d. is payable periodically under a contract, agreement, etc. (e.g., life assurance premiums, hire purchase payments, rent, etc.).

An exact conversion is prescribed for amounts of £ s.d. appearing in laws of the Commonwealth, contracts, agreements and legal documents generally—except that periodical payments in contracts, etc., will be converted on a whole-cent basis. Where the law does not prescribe the conversion to be used, the circumstances of the case will indicate the appropriate conversion. Generally, an exact conversion is appropriate for unit rates, and a whole-cent conversion for final balances. The manner in which prices expressed in £ s.d. will be fixed in \$ c is not covered by the Commonwealth currency law.

Conversion tables

For the guidance of those having to convert amounts from one currency to the other, the Decimal Currency Board issued five conversion tables.

An EXACT EQUIVALENTS table—which converts amounts of £ s.d. to their equivalents in \$ c.

A BANKING AND ACCOUNTING table—showing the conversion of amounts of £ s.d. in whole pence on a whole-cent basis.

A COMPREHENSIVE CONVERSION table—showing the conversion of amounts of £ s.d. ending in halfpence on a whole-cent basis.

A CONVERSION TABLE: \$ c TO £ s.d.: FOR USE WITH PRICE-COMPUTING INSTRUMENTS—showing the conversion of amounts of \$ c in whole cents on a nearest-penny basis.

A CONVERSION TABLE: \$ c TO £ s.d.: FOR USE WITH PRICE-COMPUTING INSTRUMENTS—showing the conversion of amounts of \$ c in whole cents on a nearest-halfpenny basis.

These tables are reproduced at the beginning of this volume.

Commonwealth assistance

In accordance with the Government's original decision, assistance is being made available to owners of a large proportion of those monetary machines requiring conversion or adaptation for decimal currency operation. Principal machines which qualify are: cash registers, adding machines, accounting machines, punched card tabulators and electronic computers, price-computing scales and fabric measuring machines, electric petrol pump computers, postal franking machines, taximeters, and cheque-writing machines. For some machines the assistance takes the form of a payment of cash compensation to the machine owner; for others it takes the form of conversion to \$ c operation, or replacement with an equivalent decimal machine in certain cases where replacement would cost no more than conversion, as part of a programme planned and supervised by the Decimal Currency Board.

The conversion or replacement of eligible cash registers, adding machines and accounting machines—totalling approximately 250,000—presents the biggest single task in the Government's assistance programme. It will be carried out, on a regional zone basis, over a period of 100 weeks from the end of January 1966. For this latter programme each State has been separated into three broad areas, city, suburban and country. Conversion is to proceed simultaneously in each State and in zones within each of these areas.

Changeover date

On Monday, 14 February 1966 (C-day), all Australian banks commenced operating in \$ c. They had operated in £ s.d. until the close of business on Wednesday, 9 February. During the intervening four days, in which they completed their conversion arrangements, they were not open for normal business. Apart from banks, all other organizations, businesses and institutions were left free to convert their financial operations to a \$ c basis at any convenient time during the transition period; for most business concerns this would be when their machines were converted or replaced. However, a considerable number of organizations commenced operating in decimal currency, with the banks, on changeover day, having made their own changeover arrangements independently of the official programme for the conversion of business machines. These organizations included all Commonwealth and State Government Departments, all railways and government bus and tram services, and many private firms, particularly larger ones.

Transition period

Decimal currency became the official currency on 14 February 1966, and decimal notes and coins became legal tender from that time. From that day onwards all cheques and other bills of exchange, and all promissory notes, have to be executed in dollars and cents. During the transition period, however, contracts and other monetary transactions may be arranged in terms of either £ s.d. or \$ c. The amounts owing under such contracts and transactions must be settled in terms of \$ c if payment is made by cheque. Where payments are made by cash the following arrangements apply:

- \$1 note interchangeable with 10s. note;
- \$2 note interchangeable with £1 note;
- \$10 note interchangeable with £5 note;
- \$20 note interchangeable with £10 note;
- 50-cent coin will be used as a 5s. coin;
- 20-cent coin interchangeable with florin;
- 10-cent coin interchangeable with shilling;
- 5-cent coin interchangeable with sixpence;
- 2- and 1-cent coins in lots of the value of 5c (= 6d.) will pay amounts of sixpence;
- Threepences, pennies and halfpennies in lots of the value of 6d. (= 5c) will pay amounts of 5 cents.

After the end of the transition period (which will be fixed by Proclamation) all references to £ s.d. in contracts, agreements, etc. with continuing effect will be converted automatically into their exact equivalents in decimal currency. Payments of amounts owing in terms of £ s.d. will be made in \$ c on a nearest-cent basis according to the conversion table shown in the Currency Act. After the end of the transition period contracts and other documents will have to be made out in terms of \$ c, and threepences, pennies and halfpennies will be legal tender only in multiples of sixpence—as will have been the case during the transition period for banking transactions and for cash payments of decimal amounts. All £ s.d. notes and coins from sixpence upwards will continue to be legal tender on the same basis as decimal notes and coins.

Notes and coins*Dimensions—Notes*

\$1	.	.	.	140 mm. x 70 mm.	(approximately 5½ inches by 2¾ inches)
\$2	.	.	.	145 mm. x 72.5 mm.	(" " 5½ " by 2¾ ")
\$10	.	.	.	155 mm. x 77.5 mm.	(" " 6¼ " by 3 ")
\$20	.	.	.	160 mm. x 80 mm.	(" " 6¼ " by 3¼ ")

Dimensions—Coins. Sample measurements have given the following results.

DIMENSIONS OF DECIMAL CURRENCY COINS
(Inches)

	1-cent (bronze)	2-cents (bronze)	5-cents (cupro- nickel)	10-cents (cupro- nickel)	20-cents (cupro- nickel)	50-cents (silver)
Diameter—						
Maximum	0.693	0.854	0.767	0.932	1.124	1.2415
Minimum	0.687	0.850	0.762	0.927	1.120	1.2403
Average	0.690	0.852	0.765	0.930	1.123	1.2409
Thickness—						
Maximum	0.063	0.079	0.055	0.072	0.094	0.083
Minimum	0.056	0.073	0.051	0.067	0.087	0.080
Average	0.058	0.076	0.053	0.069	0.091	0.0815
Height of 50 coins stacked flat—						
Maximum	2.907	3.778	2.650	3.493	4.518	4.15
Minimum	2.841	3.771	2.637	3.480	4.496	4.0
Average	2.874	3.775	2.6425	3.4862	4.507	4.075

Australian coinage

Prior to Federation in 1901 the coins circulating throughout Australia were many and varied. For a full account of the history of pre-Federation coinage see Year Book, No. 51, 1965, pages 812-14. After Federation the only coins which were legal tender within Australia until 1909 were English coins.

The Constitution in 1901 gave the Commonwealth Parliament power to make laws with respect to coinage and in 1909 the Coinage Act was passed prescribing the standard weight and fineness of coins. The first coins exclusively for circulation in Australia—silver (925 fine) florins, shillings, sixpences and threepences—were minted in 1910, by the Royal Mint, London, followed by bronze coins in 1911. The Melbourne Branch of the Royal Mint produced in 1916 the first Commonwealth coins (pence) minted in Australia. The Sydney Branch of the Royal Mint commenced production of halfpennies in 1919 and in 1922 the Perth Branch minted its first pennies.

The Commonwealth Treasury administered the Coinage Act which was repealed and replaced by the *Currency Act* 1965. All coins produced under authority of these two Acts have been ordered by the Treasury.

Australian Mints

Soon after the discovery of gold in Australia a branch of the Royal Mint was established in Sydney in 1855. The Melbourne branch was opened in 1872 and the Perth Branch in 1899. The States of New South Wales, Victoria and Western Australia provided an annual endowment in return for which the mint receipts were paid to the respective State Treasuries. Established in the three main gold-producing colonies to refine and assay gold, the branches were soon also minting sovereigns and half-sovereigns for the British Government. The Commonwealth Government exercised no control over the operations of these mints. Its role has been that of a commercial customer concerned with the quality and cost of the coin produced to its orders. Owing to losses incurred in its operations, the Sydney branch was closed at the end of 1926.

The Australian branches of the Royal Mint were concerned primarily with the refining of gold, minting of Imperial gold coins and the production of bars and ingots of gold bullion for export. The minting of Imperial gold coins was discontinued in September 1931.

From 1910 to 1916 Australian coins were minted in England by the Royal Mint, London, and the Mint, Birmingham Ltd., and in 1916, 1917 and 1918 by the Indian Mints. The minting of Australian coins was undertaken by the Australian Mints in 1916, and coins have been minted at the Melbourne branch of the Royal Mint from 1916 to the present time, at the Sydney branch from 1919 until that Mint closed in 1926, and at the Perth branch in 1922 and from 1940 to the present time.

During the 1939-45 War the two Australian mints were unable to meet the demand for Australian coins, and some coins were minted in the United States of America and India. In 1951-52 and 1952-53 some coins were minted at the Royal Mint, London, to meet the heavy demand for coins. Details of Australian coins obtained from each mint to 30 June 1965 are as follows: Melbourne, \$115,911,000; Perth, \$4,843,396; Sydney, \$976,000; United Kingdom Mints, \$6,032,000; United States Mints, \$12,000,000; Indian Mints, \$338,000; total \$140,100,396.

The construction of the Royal Australian Mint in Canberra provided the Commonwealth Government for the first time with facilities for minting its own coinage.

Coins in circulation

Brief historical notes relating to the Australian pre-decimal coinage are given in Year Book No. 37, pages 557 and 558. For weight, metal, composition, etc., of Australian pre-decimal coins in circulation see Year Book No. 39, page 697. The silver coins issued prior to July 1947 had a millesimal fineness of 925 (thirty-seven fortieths silver and three-fortieths copper) and those issued after 1 July 1947 (dated 1946 and later) had a millesimal fineness of 500 (one-half silver and one-half other metals).

The net issues of Australian silver and bronze coins from 1910 to 30 June 1965 were: crown (5s.), \$551,000; florin (2s.), \$47,102,000; shilling (1s.), \$21,530,000; sixpence (6d.), \$15,980,000; threepence (3d.), \$15,463,000; total silver coin, \$100,498,000; penny (1d.), \$6,818,000; half-penny ($\frac{1}{2}$ d.), \$1,804,000; total bronze coin, \$8,621,000. Except in the total, no allowance has been made for \$128,000 worth of damaged silver coin, for which denominations are not available, withdrawn since 1910.

Profits on coinage

Australian coins are token coins and, as the face value of the coins is greater than the value of the bullion they contain, a profit is made from their issue. This profit forms part of the Commonwealth Consolidated Revenue. In the following table details are given of the value of coins issued, the cost of bullion, the cost of minting, and sundry expenses connected with the issue, and the profits made on the issue of coins during the years 1960-61 to 1964-65.

AUSTRALIAN SILVER AND BRONZE COINS: PROFITS FROM ISSUE
1960-61 TO 1964-65
 (\$'000)

Year	Face value of coin issued (a)	Cost of bullion	Gross profit	Cost of minting and sundry charges	Net profit
Silver coin—					
1960-61 . .	4,525	3,184	1,341	516	825
1961-62 . .	7,345	5,318	2,028	536	1,492
1962-63 . .	5,515	4,536	979	526	453
1963-64 . .	4,191	4,142	49	335	-287
1964-65 . .	2,209	2,250	-41	107	-148
Bronze coin—					
1960-61 . .	290	220	70	253	-183
1961-62 . .	287	204	83	396	-313
1962-63 . .	340	242	98	340	-242
1963-64 . .	868	611	257	683	-426
1964-65 . .	445	345	100	380	-281
All coin—					
1960-61 . .	4,815	3,404	1,412	769	642
1961-62 . .	7,632	5,521	2,111	932	1,179
1962-63 . .	5,855	4,778	1,077	866	212
1963-64 . .	5,059	4,753	306	1,018	-712
1964-65 . .	2,654	2,595	58	487	-429

(a) Includes selected and proof pieces.

Minus sign (—) denotes a loss.

Gold receipts and issues

Since early in the 1939-45 War all gold has been acquired by the Reserve Bank, and the export and use of gold has been subject to regulation by the Commonwealth Government. All trading banks in Australia, the Deputy Masters of the branches of the Royal Mint in Perth and Melbourne, and two private refining companies were authorized under the Banking (Gold) Regulations to deal in gold on behalf of the Reserve Bank. The Melbourne Mint ceased to deal in gold in 1964 and from 1 August 1964, a third refining company replaced the Melbourne Mint as an authorized dealer to receive and issue gold. The Royal Australian Mint at Canberra is not authorized to receive and issue gold.

The receipts of gold at Australian mints during 1964 and 1965 amounted to 809,468 and 727,333 fine ounces respectively (Perth, 740,271 and 727,333 fine ounces respectively, Melbourne, 69,197 fine ounces in 1964).

Details of the production of gold, subsidy payable, etc. are given in the chapter Mineral Industry.

Price of gold

The following table shows the average prices of gold, the average values of the sovereign's gold content in London, and the sovereign's Reserve Bank buying price in Australia for the years 1960-61 to 1964-65. The average price of gold in Australia is based on the Reserve Bank's buying price for gold lodged with the mints.

PRICE OF GOLD: LONDON AND AUSTRALIA, 1960-61 TO 1964-65

Year	London		Australia		
	Average price per fine oz.	Average value of sovereign's gold content	Average price per fine oz.	Sovereign	
				Reserve Bank buying price	Equivalent to a premium on mint par value of—
	£stg s. d.	£stg s. d.	\$	\$	per cent
1960-61 . . .	12 11 9	2 19 3	31.25	7.25	267.8
1961-62 . . .	12 10 1	2 18 10	31.25	7.25	267.8
1962-63 . . .	12 10 6	2 19 0	31.25	7.25	267.8
1963-64 . . .	12 10 9	2 19 1	31.25	7.25	267.8
1964-65 . . .	12 11 8	2 19 3	31.25	7.25	267.8

In December 1951 arrangements were made whereby producers could sell a proportion of newly-mined gold for industrial purposes on overseas premium markets. Under these arrangements gold is acquired by the Reserve Bank in the usual manner and sold, at the Bank's buying price, to an association representing gold producers participating in the scheme. The association pays the Bank's handling charges and the costs of preparation of the gold and makes arrangements for export and sale. The gold can be sold only against payment in United States dollars. Profits earned by the association after meeting administrative expenses are distributed to members in proportion to the quantity of gold delivered to the Reserve Bank. Until August 1952, when permission was given for the export of fine gold, gold exported under this arrangement was not to exceed a fineness of 22 carats ($11\frac{1}{12}$ ths).

The average prices per fine ounce in Australian currency obtained for gold exported under this scheme for each month during 1964-65 for which there were sales were: July, \$31.365; September, \$31.433; October, \$31.488; November, \$31.506; December, \$31.510; January, \$31.507; February, \$31.480; March, \$31.465; April, \$31.541; May, \$31.437; and June, \$31.422.

The Australian note issue

In 1901 notes in circulation in Australia consisted of bank notes payable in gold coin and issued by the trading banks and Queensland Treasury notes. Bank notes circulated in all States except Queensland, but were not legal tender except for a brief period in 1893 in New South Wales. There were, however, some restrictions on their issue or other provisions for the protection of the public. Queensland Treasury notes were issued by the Queensland Government and were legal tender in that State. Notes of both categories continued in circulation until 1910 when the *Australian Notes Act 1910* and *Bank Notes Tax Act 1910* were passed by the Commonwealth Parliament. The *Australian Notes Act 1910* prohibited the circulation of State notes as money and the *Bank Notes Tax Act 1910* imposed a tax of ten per cent per annum on 'all bank notes issued or re-issued by any bank in the Commonwealth after the commencement of this Act, and not redeemed'. These Acts put an end to the issue of notes by the trading banks and the Queensland Treasury. The *Reserve Bank Act 1959* expressly prohibits persons, including States, from issuing bills or notes payable to bearer on demand and intended for circulation.

Pre-decimal currency notes

The *Australian Notes Act 1910* empowered the Governor-General to authorize the Commonwealth Treasurer to issue Australian notes in denominations of 10s., £1, £5, and £10 and any multiple of £10. These notes were to be legal tender and payable in gold coin on demand at the Commonwealth Treasury at the seat of Government. The Act came into force by proclamation on 1 November 1910 and notes were issued forthwith.

The *Australian Notes Act 1910* vested control of the note issue in the Commonwealth Treasury. In 1920 control of the note issue was transferred from the Treasury to the Commonwealth Bank. A new Note Issue Department under the control of a Notes Board was created for this purpose. In 1924 a Commonwealth Bank Board was established and control of the Note Issue passed from the Notes Board to the new Bank Board. In 1959, when the Reserve Bank was established, control of the note issue passed to the new Reserve Bank Board.

The *Commonwealth Bank Act* 1920 authorized the issue of a 5s. note. However, notes of this denomination have not been issued. As stated above, Australian notes originally issued were payable in gold coin on demand at the Commonwealth Treasury at the Seat of Government. When the control of the Australian Note Issue was transferred to the Note Issue Department of the Commonwealth Bank, it was provided that the notes should 'bear the promise of the Treasurer to redeem the notes in gold coin on demand at the Head Office of the Commonwealth Bank'. By the *Commonwealth Bank Act* 1932 this provision was abolished, and since 1932 Australian notes have not contained any such promise and are merely stated to be legal tender throughout the Commonwealth of Australia and the Territories of the Commonwealth.

Between 1910 and the changeover to decimal currency, Australian notes were issued in denominations of 10s., £1, £5, £10, £20, £50, £100, and £1,000. Notes of the £1,000 denomination were never issued to the public but were used initially by banks as a means of effecting inter-bank settlements and later by the Reserve Bank to facilitate internal transfers. The issue to the public of £20, £50 and £100 notes ceased in 1945. Immediately prior to the changeover to decimal currency, notes in denominations of 10s., £1, £5, and £10 were on issue. All £ s. d. notes issued prior to the changeover remain legal tender to any amount within Australia until a date to be fixed by proclamation as provided in the *Reserve Bank Act* 1965.

Decimal currency notes

The *Reserve Bank Act* 1965 authorized the Bank to issue Australian notes in denominations of \$1, \$2, \$5, \$10, \$20, or \$50, or in any other denomination that the Treasurer, by instrument of writing published in the Gazette, determines. The Act provided that each note of the previous currency should have the value in dollar currency set out in the following table:

10s.	• • • • •	\$1
£1	• • • • •	\$2
£5	• • • • •	\$10
£10	• • • • •	\$20
£20	• • • • •	\$40
£50	• • • • •	\$100
£100	• • • • •	\$200
£1,000	• • • • •	\$2,000

The Act came into force on 14 February 1966 and notes of \$1, \$2, \$10, and \$20 denominations were issued forthwith as legal tender to any amount throughout Australia.

The dollar notes were designed by Gordon Andrews and were printed by the Note Printing Branch of the Reserve Bank of Australia. Each note is slightly smaller than the £ s. d. note it replaced. The dimensions are shown on page 674. The \$1 note features on the front a portrait of Her Majesty, Queen Elizabeth II in the regalia of the Order of the Garter and a new exemplification of the coat-of-arms of the Commonwealth of Australia. On the back is a line interpretation of an aboriginal bark painting and of aboriginal rock paintings and carvings. On the front of the \$2 note is a portrait of John Macarthur (1767-1834) and a portrayal of the wool industry. John Macarthur played an important role in the early promotion of the Australian wool industry. On the back, William Farrer (1845-1906), a pioneer in scientific wheat breeding, is portrayed with reproductions of different varieties of wheat ears of today. The \$10 note carries a portrait on the front of Francis Greenway (1777-1837), Australia's first fully qualified architect, with a background of an assemblage of his architectural work. On the back, Henry Lawson the poet and short story writer (1867-1922), is portrayed against a background composed of photographs of his time and personal letters and manuscripts. The \$20 note features on the front a portrait of Sir Charles Kingsford Smith with pendulum tracings symbolic of wings. Sir Charles Kingsford Smith (1897-1935) was a pioneer of aviation and of air routes both within Australia and linking Australia with Europe and north America. Lawrence Hargrave (1850-1915), an Australian aeronautical pioneer, is portrayed on the back with his drawings of flying machines and kites. Each note contains a newly designed watermark portrait of Captain James Cook and an embedded metallic thread running vertically near the centre of the note.

Gold reserve against the note issue

The *Australian Notes Act* 1910 provided that the Treasurer should hold, in gold coin, a reserve of an amount not less than one fourth of the notes issued up to \$14,000,000 and an amount equal to the excess over \$14,000,000. In 1911 this provision was amended and the Treasurer was required only to hold, in gold coin, an amount not less than one fourth of the total amount of Australian notes issued. In June 1931, to permit further shipments of gold to meet short-term obligations in London, an amendment to the Commonwealth Bank Act provided for the reduction of the gold reserve for the two years ended 30 June 1933 to not less than 15 per cent. The reserve was to be increased, by graduated steps, to 25 per cent by 30 June 1935. In May 1932 a further amendment to the Commonwealth Bank Act provided that the reserve might be held 'in gold or in English sterling or partly in gold and partly in English sterling'. English sterling was defined as 'currency which is legal tender in the United Kingdom,

and included (a) balances standing to the credit of the Bank at the Bank of England or at any other of its bankers in London; (b) Bills of Exchange or advances secured by Bills of Exchange which (i) are payable in the United Kingdom in currency which is legal tender in the United Kingdom; (ii) will mature in not more than three months, and the security for the payment of which bills is, in the opinion of the Bank, satisfactory; and (c) Treasury Bills or other securities of the United Kingdom which will mature in not more than three months'.

The statutory reserve against the Note Issue was abolished by the *Commonwealth Bank Act* 1945 which provided that the assets of the Note Issue Department should be held in gold, on deposit with any bank, or in securities of the Government of the United Kingdom or of the Commonwealth or a State. This provision was continued in the *Reserve Bank Act* 1959.

Australian notes in circulation

Particulars of the average values of notes in circulation for the years 1960-61 to 1964-65 are given in the following table.

AUSTRALIAN NOTES IN CIRCULATION, JUNE 1961 TO 1965
(\$'000)

Denomination	Last Wednesday in June—				
	1961	1962	1963	1964	1965
10s.	24,118	25,150	26,276	27,550	28,396
£1	135,682	135,880	138,104	141,290	143,308
£5	372,326	379,584	386,136	390,728	392,980
£10	299,158	307,136	310,578	304,964	297,479
£20	4	4	4	4	2
£50	64	60	58	56	45
£100	74	72	64	62	41
£1,000	7,798	7,680	8,224	5,656	164
<i>Held by banks</i>	110,918	117,280	125,938	133,710	138,783
<i>Held by public</i>	728,306	738,286	743,506	736,600	723,631
Total	839,224	855,566	869,444	870,310	862,414

Reserve Bank—Note Issue Department

The following statement shows particulars of liabilities and assets of the Note Issue Department of the Reserve Bank as at 30 June 1964 and 1965.

RESERVE BANK OF AUSTRALIA: NOTE ISSUE DEPARTMENT
LIABILITIES AND ASSETS, 30 JUNE 1964 AND 1965
(\$ million)

Liabilities	1964	1965	Assets	1964	1965
Notes on issue(a)	856.1	862.4	Gold and balances held abroad (including money at short call)	546.2	381.1
Special reserve—			Other overseas securities	77.1	174.1
Premium on gold sold	9.5	9.5	Government securities (including Commonwealth Treasury bills)	263.3	337.8
Other liabilities(a)	21.1	21.3	Other assets	0.1	0.2
Total	886.7	893.2	Total	886.7	893.2

(a) Notes of a denomination not exceeding one pound which have been on issue for more than twenty years and notes of a denomination exceeding one pound which have been on issue for more than forty years are not included in the item Notes on issue but are included in the item Other liabilities.

Until June 1951 all profits of the Note Issue Department, with the exception of \$4,000,000 and \$2,400,000 paid to the capital accounts of the Rural Credits Department and Mortgage Bank Department respectively, were paid to the Commonwealth Consolidated Revenue Fund. For the years 1951-52 to 1955-56 the profits were distributed as follows: (a) \$1,000,000 per annum to the capital accounts of the Commonwealth Trading Bank (prior to 3 December 1953 the General Banking Division of the Commonwealth Bank) and the several departments of the Commonwealth Bank, distributed two-sevenths each to the Commonwealth Trading Bank, Mortgage Bank Department and Industrial Finance Department and one-seventh to the Rural Credits Department, and (b) the balance to the Commonwealth Consolidated Revenue Fund. Since 1955-56 the profits have been paid to the Commonwealth Consolidated Revenue Fund. Profits of the Note Issue Department in 1964-65 amounted to \$30,520,000.

Rates of exchange

In the following table the par of exchange (based on par values agreed with the International Monetary Fund) and average telegraphic transfer selling rates of exchange for Sydney on a number of overseas countries are shown. Generally, the averages, which are averages of daily quotations, are based on rates quoted by the Commonwealth Trading Bank. Where these were not available, rates used by the Department of Customs and Excise in converting import values to \$A for purposes of calculating customs duty are shown.

OVERSEA EXCHANGE RATES: PAR OF EXCHANGE AND AVERAGE TELEGRAPHIC TRANSFER SELLING RATES FOR SYDNEY ON OVERSEA COUNTRIES, 1964-65

Country	Basis of quotation	Australian decimal currency equivalents		Country	Basis of quotation	Australian decimal currency equivalents	
		Par of exchange (a)	Selling rate, 1964-65			Par of exchange (a)	Selling rate, 1964-65
Belgium . .	Francs to \$A1 . .	56.022	54.88	Japan . .	Yen to \$A1 . .	403.226	399.17
Canada . .	Dollars to \$A1 . .	1.211	1.1966	Netherlands . .	Guilders to \$A1 . .	4.054	3.983
Ceylon . .	Rupees to \$A1 . .	5.333	5.266	New Zealand . .	\$A to £N.Z.100 . .	248.294	249.08
China (Mainland)	New Yuan to \$A1 . .	(b)	2.74	Norway . .	Kroner to \$A1 . .	8.000	7.90
China (Taiwan)	Dollars to \$A1 . .	(c)	46.65	Pakistan . .	Rupees to \$A1 . .	5.333	5.362
Denmark . .	Kroner to \$A1 . .	7.736	7.65	Portugal . .	Escudos to \$A1 . .	32.200	31.95
Fiji . .	\$A to £F100 . .	224.226	226.00	Singapore . .	Dollars to \$A1 . .	3.429	3.398
Finland . .	Markkas to \$A1 . .	3.584	3.57	South Africa . .	Rands to \$A1 . .	0.800	0.795
France . .	Francs to \$A1 . .	5.529	5.423	Sweden . .	Kronor to \$A1 . .	5.794	5.687
Germany, Fed. Rep. of . .	Deutsche Marks to \$A1 . .	4.480	4.40	Switzerland . .	Francs to \$A1 . .	(b)	4.792
Hong Kong . .	Dollars to \$A1 . .	6.415	6.354	United Arab Republic . .	£E to \$A1 . .	0.390	0.478
India . .	Rupees to \$A1 . .	5.333	5.284	United Kingdom . .	\$A to £Stg100 . .	250.00	251.00
Indonesia . .	Rupiahs to \$A1 . .	(b)	259.54	United States of America . .	Dollars to \$A1 . .	1.120	1.1104
Italy . .	Lire to \$A1 . .	700.00	690	U.S.S.R. . .	Roubles to \$A1 . .	(b)	1.004

(a) As at 30 June 1965, established under International Monetary Fund Agreement. (b) Not a member of the International Monetary Fund. (c) No par value established.

VOLUME OF MONEY

The information in the following table is compiled by the Reserve Bank of Australia.

VOLUME OF MONEY: AUSTRALIA, JUNE 1961 TO 1965

(Source: Reserve Bank of Australia)

(\$ million)

June—	Notes and coin in hands of public	Deposits of public with all cheque-paying banks(a)		Deposits with all savings banks(b)	Total volume of money
		Current	Fixed		
1961	797	2,496	870	3,138	7,301
1962	810	2,569	1,039	3,428	7,845
1963	818	2,646	1,147	3,906	8,517
1964	815	2,917	1,380	4,444	9,556
1965	814	2,977	1,688	4,858	10,337

(a) Excludes Government and inter-bank deposits, but includes deposits of the public with the Reserve Bank. (b) Interpolated 'weekly average' based on end of month figures.

BANKING

Royal Commission on Monetary and Banking Systems

A Royal Commission was appointed by the Commonwealth Government in November 1935 to inquire into the monetary and banking systems in operation in Australia and to report whether any, and if so what, alterations were desirable in the interests of the people of Australia as a whole, and the manner in which any such alterations should be effected. The Commission presented its report on 15 July 1937 and a summary of the recommendations appears in Year Book No. 31, page 1010.

Commonwealth banking legislation.

Under Section 51 of the Commonwealth Constitution the Commonwealth Parliament has power to legislate with respect to 'Banking, other than State banking; also State banking extending beyond the limits of the State concerned, the incorporation of banks, and the issue of paper money.' The principal Commonwealth Acts at present in force relating to banking are as follows.

(a) The *Reserve Bank Act* 1959-1965 provides for the constitution and management of the Reserve Bank of Australia and the management of the Australian note issue.

(b) The *Banking Act* 1959-1965 provides for the regulation of banking and for the protection of the currency and the public credit of the Commonwealth. This Act, which replaced the *Banking Act* 1945-1953, was first assented to on 23 April 1959 and came into operation on 14 January 1960 as the *Banking Act* 1959. It was amended by the *Banking Act* 1965 in order to make certain changes required by the change to decimal currency. It applies to all banks, including savings banks, operating in Australia or the Territories of the Commonwealth except State banks trading in their own State. The objects of the Act are: (i) to provide a legal framework uniform throughout Australia for regulating the banking system; (ii) to safeguard depositors of the banks from loss; (iii) to provide for the co-ordination of banking policy under the direction of the Reserve Bank; (iv) to control the volume of credit in circulation and bank interest rates; (v) to mobilize and to provide machinery for the control of the foreign exchange and gold resources of the Australian economy. A summary of the main provisions of the *Banking Act* 1959 is given in Year Book No. 46, pages 759-60.

(c) The *Commonwealth Banks Act* 1959-1965 provides for the constitution and management of the Commonwealth Banking Corporation, Commonwealth Trading Bank of Australia, Commonwealth Savings Bank of Australia, and Commonwealth Development Bank of Australia.

The Commonwealth Banking Corporation came into being on 14 January 1960. It is the controlling body for the Commonwealth Trading Bank, Commonwealth Savings Bank and Commonwealth Development Bank. Under the *Banking Act* 1959-1965 the Corporation and its constituent banks are subject to the same central banking controls as are the private trading banks.

The Board of the Corporation consists of the Managing Director of the Corporation, the Deputy Managing Director, the Secretary to the Treasury, and eight other members appointed by the Governor-General of whom one is Chairman and another Deputy Chairman. In addition, there is an Executive Committee of the Board for each of the three separate banks. These Executive Committees are appointed by the Treasurer, after consultation with the Board, and are charged with taking such action as is necessary to ensure that effect is given by the respective banks to the policies laid down for them and to any directions given by the Board in relation to their affairs. Under the Board the Corporation is managed by the Managing Director and the Deputy Managing Director. Each of the three constituent banks of the Corporation has its own statutory functions and responsibilities and its separate identity within the framework of the Corporation. Each bank is managed by a General Manager under the Managing Director of the Corporation.

On pages 686-7 details are given of the assets and liabilities of the Commonwealth Development Bank. Details for the Commonwealth Savings Bank are shown on pages 707-9. Details for the Commonwealth Trading Bank are included in statistics of cheque-paying banks—Major Trading Banks, on pages 688-94.

State banking legislation

The State Acts under which the various banks are incorporated differ. While some of the older banks were incorporated by special Act or Charter, e.g. the Bank of New South Wales by Act of Council 1817, the Bank of Adelaide by Act of the South Australian Parliament, and the Bank of New Zealand by Act of the General Assembly of New Zealand, most of the banks are incorporated under a Companies Act of the States or the United Kingdom. This is also the case with those banks which were reconstructed after the financial crisis of 1893. State banks, constituted under State Acts, transacting general banking business are The Rural Bank of New

South Wales, the State Bank of South Australia, and The Rural and Industries Bank of Western Australia. State savings banks, constituted under State Acts, transacting savings bank business are The State Savings Bank of Victoria and The Savings Bank of South Australia (see pages 706-15).

Presentation of banking statistics

Because of the different purposes they serve in the Australian financial system, Australian banks have been divided for statistical purposes into the following four groups and a separate series is presented for each.

- (i) *The Reserve Bank of Australia.* Statistics of the Central Banking Business, the Note Issue Department, and the Rural Credits Department are shown separately (see pages 684-5).
- (ii) *The Commonwealth Development Bank of Australia.* The prime purpose of this Bank is to assist in the development of worthwhile enterprises in the field of both primary and secondary industries which would otherwise be unable to obtain the necessary finance on reasonable and suitable terms and conditions. (See pages 686-7.)
- (iii) *Cheque-paying Banks. Major Trading Banks.* These comprise the Commonwealth Trading Bank, Australia and New Zealand Bank Ltd., The Bank of Adelaide, Bank of New South Wales, The Commercial Bank of Australia Ltd., The Commercial Banking Company of Sydney Ltd., The English, Scottish and Australian Bank Ltd., The National Bank of Australasia Ltd. (See pages 687-705.)

All cheque-paying Banks. These comprise the major trading banks and the following banks—the Bank of China, Bank of New Zealand, The Brisbane Permanent Building and Banking Co. Ltd., Comptoir National d'Escompte de Paris, the General Bank Department of the Rural Bank of New South Wales, the General Banking Department of the State Bank of South Australia, and the Rural Department of the Rural and Industries Bank of Western Australia. (See pages 687 and 693-7.)

Australian cheque-paying banks (see pages 688-94) comprises all cheque-paying banks except the Bank of China, Bank of New Zealand and Comptoir National d'Escompte de Paris.

- (iv) *Savings Banks.* Savings banks operating at 30 June 1965 were—the Commonwealth Savings Bank, the Australia and New Zealand Savings Bank Ltd., the Bank of New South Wales Savings Bank Ltd., and The National Bank Savings Bank Ltd. (in all States and Territories within and without Australia); The Bank of Adelaide Savings Bank Ltd. (all States except Tasmania); The Commercial Savings Bank of Australia Ltd. and the E.S. & A. Savings Bank Ltd. (in all States and Territories within Australia); the C.B.C. Savings Bank Ltd. (in all States and in the Australian Capital Territory); The State Savings Bank of Victoria, The Savings Bank of South Australia, the Savings Bank Division of The Rural and Industries Bank of Western Australia, and the two trustee banks, The Hobart Savings Bank and Launceston Bank for Savings. (See pages 706-15.)

Reserve Bank of Australia

The Reserve Bank of Australia, established under the *Reserve Bank Act* 1959, which came into operation on 14 January 1960, continued in existence the body corporate known as the Commonwealth Bank of Australia. An account of the progress and development of that bank is given in earlier issues of the Year Book (see No. 37, pages 570-2, and No. 45, pages 735-7).

The general functions of the Reserve Bank are set out in Section 10 of the *Reserve Bank Act* 1959-1965, which states:

'It is the duty of the Board, within the limits of its powers, to ensure that the monetary and banking policy of the Bank is directed to the greatest advantage of the people of Australia and that the powers of the Bank under this Act, the *Banking Act* 1959, and regulations under that Act are exercised in such a manner as, in the opinion of the Board, will best contribute to,

- (a) the stability of the currency of Australia;
- (b) the maintenance of full employment in Australia; and
- (c) the economic prosperity and welfare of the people of Australia.'

In addition to its functions as a Central Bank, the Bank controls the Australian note issue through a Note Issue Department, provides special banking facilities through the Rural Credits Department, and acts as banker to the Commonwealth and some of the States.

Prior to its reconstitution as the Reserve Bank, the Commonwealth Bank also provided general banking facilities through a General Banking Division up to 3 December 1953, when that business was taken over by the Commonwealth Trading Bank, and special banking facilities through the Mortgage Bank and Industrial Finance Departments. In addition, the Board of the Commonwealth Bank was responsible for the policy and administration of the Commonwealth Trading Bank and Commonwealth Savings Bank. On 14 January 1960, on its reconstitution as the Reserve Bank, the Mortgage Bank and Industrial Finance Departments were amalgamated to form the Commonwealth Development Bank, and that institution, together with the Commonwealth Trading Bank and the Commonwealth Savings Bank, was placed under the control of the Commonwealth Banking Corporation, an organization established under the *Commonwealth Banks Act* 1959 and entirely separate from the Reserve Bank.

Management

The Commonwealth Bank was managed between 1911 and 1924 by a Governor, from 1924 to August 1945 by a Board of Directors, from August 1945 to August 1951 by a Governor assisted by an Advisory Council, and since August 1951 by a Board of Directors.

Under the provisions of the *Reserve Bank Act* 1959–1965 the policy of the Reserve Bank is determined by a Board consisting of the Governor (Chairman), the Deputy Governor, the Secretary to the Treasury, and seven other members appointed by the Governor-General. The Bank is managed by the Governor, who acts in accordance with the policy of the Board and with any directions of the Board. The Bank is required to inform the Government of the monetary and banking policy of the Board. In the event of a disagreement between the Government and the Board as to whether the monetary and banking policy of the Bank is directed to the greatest advantage of the people of Australia, the Governor-General, acting with the advice of the Executive Council, may determine the policy to be adopted by the Bank.

Central banking business

Under the powers it possessed under the *Commonwealth Bank Act* 1911–1943 and under its war-time powers under the National Security Regulations the Commonwealth Bank gradually assumed the functions of a Central Bank. Part III. of the *Commonwealth Bank Act* 1945 formally constituted the Bank as a Central Bank and granted the necessary powers to carry on the business of a Central Bank, and these powers were carried through into the present Act constituting the Reserve Bank. Under the provisions of the *Reserve Bank Act* 1959–1965 the capital for the Central Banking Business is the capital of the Commonwealth Bank for Central Banking purposes immediately prior to 14 January 1960 and such other sums as are transferred from the Reserve Bank Reserve Fund. The profits of the Bank are distributed as follows: (a) such sums as the Treasurer, after consultation with the Bank, determines shall be placed to the credit of the Reserve Bank Reserve Fund and (b) the remainder shall be paid to the Commonwealth.

Note Issue Department

The Note Issue Department, established in 1920 when the control of the Australian note issue was transferred from the Commonwealth Treasury to the Commonwealth Bank, was maintained in the same form under the *Reserve Bank Act* 1959. The Reserve Bank may, through this Department, issue, re-issue and cancel Australian notes. Under the *Reserve Bank Act* 1959–1965 the profits of the Note Issue Department are paid to the Commonwealth.

Rural Credits Department

The Rural Credits Department, established in 1925 for the purpose of making short-term credit available for the orderly marketing of primary produce, was continued in the same form under the *Reserve Bank Act* 1959. The Reserve Bank may, through this Department, make advances upon the security of primary produce placed under the legal control of the Bank, or other security associated with the production or marketing of primary produce to co-operative associations or marketing boards formed under the laws of the Commonwealth or a State or Territory of the Commonwealth or other bodies specified by proclamation. The period of the advance shall not exceed one year. Under the provisions of the *Reserve Bank Act* 1959–1965 the capital of the Rural Credits Department is the capital of the Rural Credits Department of the Commonwealth Bank immediately prior to 14 January 1960, and \$4,000,000 provided by the Reserve Bank. The profits of the Rural Credits Department are dealt with as follows: (a) one half to the credit of the Rural Credits Department Reserve Fund and (b) one half to the credit of the Rural Credits Development Fund.

Reserve Bank liabilities and assets—all Departments

Liabilities and assets of each Department of the Reserve Bank at 30 June 1961 to 1965 are shown in the following table.

RESERVE BANK OF AUSTRALIA: LIABILITIES, 30 JUNE 1961 TO 1965
(\$ million)

30 June—	Capital and reserve funds	Development fund	Special reserve—premium on gold sold	Australian notes on issue	Deposits of trading banks		Deposits of saving banks	Other deposits, bills payable and other liabilities	Total
					Statutory reserve deposit accounts	Other			
CENTRAL BANKING BUSINESS									
1961	43.8	..	..	..	466.1	78.0	277.1	444.2	1,309.2
1962	48.2	..	..	..	387.9	175.0	320.2	315.5	1,246.9
1963	51.6	..	..	..	445.2	102.9	370.1	331.9	1,301.7
1964	56.5	..	..	..	676.3	101.8	432.3	327.9	1,594.8
1965	61.3	..	..	..	654.7	100.4	429.6	347.2	1,593.2

NOTE ISSUE DEPARTMENT									
1961	..	..	9.5	831.6	..	..	..	20.7	861.7
1962	..	..	9.5	848.4	..	..	..	20.8	878.7
1963	..	..	9.5	860.3	..	..	..	20.9	890.7
1964	..	..	9.5	856.1	..	..	..	21.1	886.7
1965	..	..	9.5	862.4	..	..	..	21.3	893.2

RURAL CREDITS DEPARTMENT									
1961	12.8	0.5	..	..	..	..	..	151.1	164.4
1962	13.3	0.5	..	..	..	..	..	105.2	119.0
1963	13.7	0.5	..	..	..	..	..	196.3	210.6
1964	14.2	0.6	..	..	..	..	..	116.1	130.9
1965	14.7	0.6	..	..	..	..	..	227.7	243.1

TOTAL(a)									
1961	56.6	0.5	9.5	831.6	466.1	78.0	277.1	299.8	2,194.6
1962	61.5	0.5	9.5	848.4	387.9	175.0	320.2	332.7	2,155.0
1963	65.3	0.5	9.5	860.3	445.2	102.9	370.1	338.4	2,217.7
1964	70.8	0.6	9.5	856.1	676.3	101.8	432.3	341.1	2,509.0
1965	76.1	0.6	9.5	862.4	654.7	100.4	429.6	362.4	2,515.6

(a) Inter-departmental accounts have been offset.

RESERVE BANK OF AUSTRALIA: ASSETS, 30 JUNE 1961 TO 1965
(\$ million)

30 June—	Gold and balances held abroad (a)	Other overseas securities	Australian notes, coin	Australian Government securities (b)	Cheques and bills of other banks	Loans, advances, bills dis- counted, all other assets(c)	Bank premises (d)	Bills receivable and remit- tances in transit	Total
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CENTRAL BANKING BUSINESS

1961	578.3	35.9	8.2	497.8	5.6	151.7	4.7	26.9	1,309.2
1962	547.1	37.7	11.4	523.0	4.2	101.3	6.5	15.5	1,246.9
1963	592.7	35.5	14.0	431.6	4.5	203.6	10.0	9.8	1,301.7
1964	866.1	122.6	12.7	411.6	5.5	131.6	15.1	29.6	1,594.8
1965	506.3	237.1	10.1	464.4	32.6	277.1	22.4	43.1	1,593.2

NOTE ISSUE DEPARTMENT

1961	350.8	32.0	..	478.9	..	0.1	..	..	861.7
1962	442.7	30.0	..	405.9	..	0.1	..	..	878.7
1963	500.0	31.9	..	358.7	..	0.1	..	..	890.7
1964	546.2	77.1	..	263.3	..	0.1	..	..	886.7
1965	381.1	174.1	..	337.8	..	0.2	..	..	893.2

RURAL CREDITS DEPARTMENT

1961	..	..	..	..	..	164.4	..	..	164.4
1962	..	..	..	..	..	119.0	..	..	119.0
1963	..	..	..	..	..	210.6	..	..	210.6
1964	..	..	..	..	..	130.9	..	..	130.9
1965	..	..	..	..	..	243.1	..	..	243.1

TOTAL(e)

1961	929.1	67.9	8.2	976.7	5.6	175.5	4.7	26.9	2,194.6
1962	989.9	67.7	11.4	929.0	4.2	130.9	6.5	15.5	2,155.0
1963	1,092.7	67.4	14.0	790.3	4.5	229.0	10.0	9.8	2,217.7
1964	1,412.3	199.6	12.7	675.0	5.5	159.1	15.1	29.6	2,509.0
1965	887.3	411.3	10.1	802.3	32.6	306.5	22.4	43.1	2,515.6

(a) Includes currency at short call. (b) Includes Treasury bills and Treasury notes—prior to July 1962, Treasury bills and seasonal securities, the latter securities being replaced by Treasury notes. (c) After deducting provision for debts considered bad or doubtful. (d) At cost, less amounts written off. (e) Inter-departmental accounts have been offset.

Reserve Bank profits

Net profits of the various Departments of the Reserve Bank for the years 1960–61 to 1964–65 were as follows.

RESERVE BANK OF AUSTRALIA: NET PROFITS
1960-61 TO 1964-65
(\$ million)

Year	Central Banking Business	Note Issue Depart- ment	Rural Credits Depart- ment	Total
1960-61	13.4	25.9	0.9	40.1
1961-62	13.3	31.5	0.9	45.8
1962-63	6.7	25.6	0.9	33.2
1963-64	10.0	27.0	1.0	37.9
1964-65	15.3	30.5	1.0	46.8

The distribution of these profits for the years 1960-61 to 1964-65 is shown in the following table.

RESERVE BANK OF AUSTRALIA: DISTRIBUTION OF PROFITS
1960-61 TO 1964-65
(\$ million)

Year	Total net profits	Distributed to—			
		Commonwealth of Australia	Reserve Bank Reserve fund	Rural Credits Department	
				Reserve fund	Development fund
1960-61	40.1	32.6	6.7	0.4	0.4
1961-62	45.8	40.5	4.4	0.5	0.5
1962-63	33.2	28.9	3.4	0.4	0.4
1963-64	37.9	32.0	5.0	0.5	0.5
1964-65	46.8	41.0	4.8	0.5	0.5

Commonwealth Development Bank of Australia

The Commonwealth Development Bank of Australia was established by the *Commonwealth Banks Act* 1959 and commenced operations on 14 January 1960. It was formed basically from an amalgamation of the Mortgage Bank and Industrial Finance Departments of the Commonwealth Bank. Under the Act the Bank is authorized to provide assistance for the development of worthwhile enterprises in the fields of primary and secondary industries which would otherwise be unable to obtain the necessary finance on reasonable and suitable terms and conditions. The Commonwealth Development Bank is managed by a General Manager under the Managing Director of the Commonwealth Banking Corporation, and its policy is determined by the Board of that Corporation. The capital of the Development Bank consists of the capital of the Mortgage Bank and Industrial Finance Departments of the Commonwealth Bank immediately prior to 14 January 1960, \$10,000,000 provided by the Reserve Bank, \$20,000,000 provided by the Commonwealth Government in the 1961-62 Budget and \$10,000,000 in the 1963-64 Budget, and such other sums as are provided from the Commonwealth Development Bank Reserve Fund. The net profits of the Bank are paid to the Commonwealth Development Bank Reserve Fund.

Liabilities and assets

The liabilities and assets of the Commonwealth Development Bank at 30 June 1961 to 1965 are shown in the following tables.

COMMONWEALTH DEVELOPMENT BANK OF AUSTRALIA: LIABILITIES
30 JUNE 1961 TO 1965
(\$ million)

30 June—	Capital	Reserve fund	Balances due to other banks	Deposits, bills payable, all other liabilities	Total
1961	31.7	11.7	30.2	16.7	90.4
1962	51.7	13.1	29.1	18.5	112.4
1963	51.7	14.9	28.2	20.2	115.0
1964	61.7	16.8	27.2	22.9	128.6
1965	61.7	19.0	45.0	25.1	150.8

COMMONWEALTH DEVELOPMENT BANK OF AUSTRALIA: ASSETS
30 JUNE 1961 TO 1965
(\$ million)

30 June—	Coin, bullion, notes and cash at bankers	Australian public securities (incl. Treasury bills)	Other securities	Loans to authorized dealers in short-term money market	Cheques and Bills of other banks	Loans, advances and bills dis-counted	All other assets	Total
1961. .	1.0	8.7	0.8	0.4	0.4	78.9	0.2	90.4
1962. .	0.7	12.8	0.7	1.0	0.6	96.3	0.4	112.4
1963. .	0.8	5.3	0.4	0.4	0.8	106.9	0.3	115.0
1964. .	0.6	3.0	0.4	..	0.9	123.4	0.4	128.6
1965. .	0.3	1.2	0.4	0.7	1.0	146.8	0.5	150.8

Profit and loss

The profit and loss of the Commonwealth Development Bank for the years 1960-61 to 1964-65, is shown in the following table. The net profit was appropriated to the Commonwealth Development Bank Reserve Fund.

COMMONWEALTH DEVELOPMENT BANK OF AUSTRALIA
PROFIT AND LOSS, 1960-61 TO 1964-65
(\$ million)

Year	Discount and interest earned, etc.(a)	Expenses (b)	Taxes and payments in lieu of taxes	Net Profit (c)
1960-61 .	4.6	3.3	..	1.2
1961-62 .	5.2	3.8	..	1.4
1962-63 .	5.6	3.8	..	1.8
1963-64 .	6.1	4.1	..	1.9
1964-65 .	7.2	5.0	0.1	2.1

(a) Discount and interest earned, net exchange commissions and other items (including transfers from contingencies accounts)—after deducting interest paid and accrued on deposits, rebate on bills current at balance date, amounts written off assets, and losses on realization of assets and transfers to the credit of contingencies accounts (out of which accounts provision for all bad and doubtful debts has been made).
(b) Includes proportion of expenses of Commonwealth Banking Corporation attributable to the Development Bank. (c) Appropriated to Commonwealth Development Bank Reserve Fund.

Cheque-paying banks**Banks transacting business in Australia**

At 30 June 1965 the fifteen banks operating in Australia transacted all classes of banking business at 4,440 branches and 1,769 agencies. The major trading banks have branches throughout Australia. The Rural Bank of New South Wales, the State Bank of South Australia, and The Rural and Industries Bank of Western Australia, being State Government banks, have branches only in their respective States. The Brisbane Permanent Building and Banking Co. Ltd. transacts business only in Brisbane. The remaining three banks are branches of overseas banks.

CHEQUE-PAYING BANKS: NUMBER OF BRANCHES(a)
STATES AND TERRITORIES, 30 JUNE 1965

Banks	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Major Trading Banks . . .	1,520	1,160	668	386	331	101	12	25	4,203
Other cheque-paying banks . .	151	2	1	35	48	..	..	..	237
All cheque-paying banks—									
Metropolitan area . . .	756	658	203	189	169	30	..	..	2,005
Elsewhere . . .	915	504	466	232	210	71	12	25	2,435
Total . . .	1,671	1,162	669	421	379	101	12	25	4,440

(a) Includes head offices. Excludes 1,769 agencies.

Australian cheque-paying banks—balance sheets

Liabilities and assets of individual Australian cheque-paying banks at balance dates in 1965 (and corresponding totals for these banks in 1964) are shown in the following tables. The information for the Major Trading Banks and The Brisbane Permanent Building and Banking Co. Ltd. has been obtained from the annual returns lodged with the Commonwealth Statistician under Section 52 of the *Banking Act* 1959, whereas that for the other banks has been compiled from information published in their annual reports.

AUSTRALIAN CHEQUE-PAYING BANKS: LIABILITIES(a), 1964 AND 1965
(\$'000)

Bank	Paid-up capital	Reserve funds (used in business of bank)	Final dividend proposed	Balance of profit and loss account	Total shareholders' funds or total capital and reserve funds	Balances due to other banks	Deposits, bills payable and other liabilities (b)	Total
1965—								
Major Trading Banks—								
Commonwealth Trading Bank of Australia	(c) 14,858	11,212	..	..	26,070	1,831	1,055,946	1,083,847
Australia and New Zealand Bank Ltd.	38,654	26,192	1,590	4,416	70,851	53,336	1,096,957	1,221,144
The Bank of Adelaide	5,600	5,450	228	525	11,803	2,386	91,366	105,554
Bank of New South Wales	43,900	33,500	2,195	3,794	83,389	22,389	1,517,736	1,623,514
The Commercial Bank of Australia Ltd.	17,658	10,550	756	1,279	30,243	8,270	594,883	633,396
The Commercial Banking Co. of Sydney Ltd.	17,000	14,628	850	1,163	33,641	12,236	565,162	611,039
The English, Scottish and Australian Bank Ltd.	17,570	11,672	619	1,843	31,703	385	441,226	473,314
The National Bank of Australasia Ltd.	25,223	18,000	1,261	1,643	46,127	1,725	843,377	891,230
The Queensland National Bank Ltd. (in vol. liq.)(d)	..	..	..	61	61	..	135	195
Total, Major Trading Banks	180,463	131,203	7,499	14,724	333,888	102,557	6,206,788	6,643,233
Other banks—								
The Brisbane Permanent Building and Banking Co. Ltd.	2,500	975	100	146	3,721	..	8,378	12,099
The Rural Bank of New South Wales (General Bank Department)	(e) 20,645	(f) 31,678	..	..	52,323	..	241,332	293,655
State Bank of South Australia (General Banking Department)	(g) 13,044	5,396	..	..	18,440	..	(h) 79,046	97,486
The Rural and Industries Bank of Western Australia (Rural Department)	(i) 22,165	1,818	..	..	23,983	..	(j) 71,858	95,841
Total, other banks	58,354	39,867	100	146	98,467	..	400,613	499,080
Total, all banks, 1965	238,817	171,070	7,599	14,870	432,355	102,557	6,607,401	7,142,314
" " " 1964	234,687	165,583	7,604	13,224	421,098	91,742	6,230,464	6,743,303

(a) For dates of balance-sheets see table on page 691. (b) Includes provision for contingencies. (c) Amount specified as capital in the *Commonwealth Banks Act* 1959. (d) This bank is in the process of liquidation consequent upon the amalgamation of its business with The National Bank of Australasia Ltd. (e) Inscribed stock and debentures issued for capital purposes. (f) Includes special reserve built up from share of profits of the Commonwealth Savings Bank in New South Wales. (g) Capital provided by State Government of South Australia. (h) Includes \$45,428,174 of advances by State Treasurer to Home Builders' Fund. (i) Capital provided by State Government of Western Australia. The Sinking Fund established for redemption of capital has been deducted. (j) Includes Savings Bank deposits, \$33,288,934.

AUSTRALIAN CHEQUE-PAYING BANKS: ASSETS(a), 1964 AND 1965
(\$'000)

Bank	Coin, bullion, notes and cash at Reserve Bank	Money at short call over- seas	Australian public securities			Other public secur- ities	Other secur- ities	Loans to author- ized dealers in short- term money market
			Commonwealth Government		Local and semi- govt. author- ities			
			Treas- ury bills and notes	Other secur- ities				
1965—								
Major Trading Banks—								
Commonwealth Trading Bank of Australia	39,338	7,813	8,204	212,441	7,835	898	7,998	14,566
Australia and New Zealand Bank Ltd.	53,922	10,417	11,798	90,016	..	34,659	5,177	8,402
The Bank of Adelaide . . .	3,934	2,240	300	12,859	..	..	3,814	2,600
Bank of New South Wales . .	46,430	17,000	24,048	212,387	248	12,414	20,265	10,830
The Commercial Bank of Australia Ltd.	30,214	3,250	2,052	80,259	908	2,374	8,220	4,900
The Commercial Banking Co. of Sydney Ltd.	15,775	3,875	..	84,922	..	..	9,836	13,500
The English, Scottish and Aus- tralian Bank Ltd.	25,844	1,506	3,000	58,832	..	1,411	7,284	4,750
The National Bank of Australasia Ltd.	19,504	1,088	18,130	124,574	..	3,147	9,473	11,130
The Queensland National Bank Ltd. (in voluntary liquidation)(c)	..	..	..	..	..	..	..	..
Total, Major Trading Banks .	234,961	47,188	67,531	876,292	8,991	54,904	72,066	70,678
Other banks—								
The Brisbane Permanent Building and Banking Co. Ltd. . . .	151	..	..	1,079	13	..	610	..
The Rural Bank of New South Wales (General Bank Depart- ment)	9,751	..	..	41,968	1,118	..	..	15,781
State Bank of South Australia (General Banking Department) .	1,568	..	..	8,302	..	..	1,374	..
The Rural and Industries Bank of Western Australia (Rural Depart- ment)(g)	(h)4,008	..	..	33,780	10,974	..	..	..
Total, other banks	15,478	..	..	85,130	12,105	..	1,984	15,781
Total, all banks, 1965 . . .	250,439	47,188	67,531	961,421	21,096	54,904	74,050	86,459
.. .. . 1964	304,719	42,036	92,621	950,934	17,208	48,407	65,910	115,915

For footnotes see page 690.

AUSTRALIAN CHEQUE-PAYING BANKS: ASSETS(a), 1964 AND 1965—continued
(\$'000)

Bank	Statutory reserve deposit account with Reserve Bank	Cheques and bills of, and balances with and due from, other banks	Loans(b) advances and bills discounted	Bank premises, furniture and sites	Bills receivable and remittances in transit	All other assets	Total
1965—							
Major Trading Banks—							
Commonwealth Trading Bank of Australia	115,154	32,891	441,258	8,868	178,676	7,907	1,083,847
Australia and New Zealand Bank Ltd.	86,822	68,262	612,833	26,814	209,931	2,092	1,221,144
The Bank of Adelaide	10,932	5,313	51,255	3,961	7,229	1,117	105,554
Bank of New South Wales	156,226	60,614	754,638	28,000	276,409	4,005	1,623,514
The Commercial Bank of Australia Ltd.	63,136	28,437	326,297	15,297	65,883	2,168	633,396
The Commercial Banking Co. of Sydney Ltd.	66,030	27,197	280,913	14,186	88,401	6,404	611,039
The English, Scottish and Australian Bank Ltd.	51,558	22,536	204,221	13,523	76,411	2,438	473,314
The National Bank of Australasia Ltd.	98,054	32,037	401,131	24,155	127,437	21,371	891,230
The Queensland National Bank Ltd. (in voluntary liquidation)(c) . . . . .	..	(d) 192	4	..	..	..	195
Total, Major Trading Banks	647,912	277,477	3,072,549	134,804	1,030,378	47,503	6,643,233
Other banks—							
The Brisbane Permanent Building and Banking Co. Ltd.	144	1,182	8,807	92	..	20	12,099
The Rural Bank of New South Wales (General Bank Department) . . . . .	..	8,631	190,201	12,467	(e)	13,737	293,655
State Bank of South Australia (General Banking Department) . . . . .	..	707	(f)80,013	1,221	3,037	1,265	97,486
The Rural and Industries Bank of Western Australia (Rural Department)(g) . . . . .	..	(i)	41,367	3,546	..	2,166	95,841
Total, other banks	144	10,520	320,388	17,325	3,037	17,189	499,080
Total, all banks, 1965	648,056	287,997	3,392,937	152,130	1,033,414	64,691	7,142,314
" " " 1964	662,258	281,363	3,005,582	144,979	963,053	48,319	6,743,303

(a) For dates of balance-sheets see table on page 691. (b) Other than loans to authorized dealers in the short-term money market. (c) See footnote (d), on page 688. (d) Inter-bank balance with The National Bank of Australasia Ltd. (e) Included with Loans, advances, etc. (f) Includes \$45,598,000 advances under extended terms—Home Builders' Fund. (g) Includes assets held against Savings Bank deposits of \$33,289,000. (h) Includes accounts with State Treasury. (i) Included with Coin, bullion, notes and cash at Reserve Bank.

Australian cheque-paying banks—profit and loss accounts

Details of the profit and loss accounts and the appropriation of profits of individual Australian cheque-paying banks for 1965 are shown below (with corresponding totals for 1964).

AUSTRALIAN CHEQUE-PAYING BANKS: PROFIT AND LOSS, 1964 AND 1965
(\$'000)

Bank	Year ended	Net earnings (a)	Expenses (b)	Income, land and other taxes and payments in lieu of taxes	Net profit
1965—					
Major Trading Banks—					
Commonwealth Trading Bank of Australia	30.6.65	37,401	33,614	1,768	2,019
Australia and New Zealand Bank Ltd.	30.9.65	49,444	39,594	5,260	4,591
The Bank of Adelaide	30.9.65	5,017	4,196	246	575
Bank of New South Wales	30.9.65	63,714	49,936	6,803	6,975
The Commercial Bank of Australia Ltd.	30.6.65	23,234	19,484	2,026	1,724
The Commercial Banking Co. of Sydney Ltd.	30.6.65	20,169	15,356	2,286	2,527
The English, Scottish and Australian Bank Ltd.	30.6.65	21,884	18,004	2,110	1,770
The National Bank of Australasia Ltd.	30.9.65	29,119	24,969	1,849	2,301
The Queensland National Bank Ltd. (in voluntary liquidation)	30.9.64	1	..	1	..
<i>Total, Major Trading Banks.</i>		249,983	205,154	22,349	22,481
Other banks—					
The Brisbane Permanent Building and Banking Co. Ltd.	31.8.65	685	222	200	264
The Rural Bank of New South Wales (General Bank Department)	30.6.65	9,216	8,484	(1)	732
State Bank of South Australia (General Banking Department)	30.6.65 (j)	4,640	4,002	(1)	638
The Rural and Industries Bank of Western Australia (Rural Department)(k)	31.3.65 (j)	5,163	4,938	(1)	226
<i>Total, other banks</i> . . . . .	..	19,705	17,646	200	1,859
Total, all banks, 1965 . . . . .	..	269,688	222,799	(1)	24,339
" " " 1964 . . . . .	..	251,768	202,557	(1)	22,593

For footnotes see page 692.

AUSTRALIAN CHEQUE-PAYING BANKS: APPROPRIATION OF PROFITS
1964 AND 1965
(\$'000)

Bank	Reserve funds (c)	Writing-off bank pre-mises	Other appropriations	Dividends(d)			
				Gross	British income taxes payable by bank and recouped from shareholders	Net	Rate per annum (per cent)
1965—							
Major Trading Banks—							
Commonwealth Trading Bank of Australia	828	362	(e) 828	..	..	..	..
Australia and New Zealand Bank Ltd. . .	1,255	..	..	4,638	(f) 913	2,725	(g) 12.0
The Bank of Adelaide	138	..	..	403	..	403	10.0
Bank of New South Wales	1,000	1,202	..	4,390	..	4,390	10.0
The Commercial Bank of Australia Ltd. . .	..	150	..	1,512	..	1,512	(h)
The Commercial Banking Co. of Sydney Ltd.	600	200	..	1,700	..	1,700	10.0
The English, Scottish and Australian Bank Ltd. . . . .	..	..	..	1,757	(f) 432	1,032	(g) 10.0
The National Bank of Australasia Ltd. . .	..	..	..	2,522	..	2,522	10.0
The Queensland National Bank Ltd. (in voluntary liquidation) . . . . .	..	..	..	..	..	..	..
<i>Total, Major Trading Banks</i>	<i>3,821</i>	<i>1,914</i>	<i>828</i>	<i>16,922</i>	<i>1,345</i>	<i>14,284</i>	<i>..</i>
Other banks—							
The Brisbane Permanent Building and Banking Co. Ltd.	50	..	..	200	..	200	8.0
The Rural Bank of New South Wales (General Bank Department)	732	..	..	..	..	..	..
State Bank of South Australia (General Banking Department)	638	..	..	..	..	..	..
The Rural and Industries Bank of Western Australia (Rural Department)(k)	226	..	..	..	..	..	..
<i>Total, other banks</i>	<i>1,645</i>	<i>..</i>	<i>..</i>	<i>200</i>	<i>..</i>	<i>200</i>	<i>..</i>
Total, all banks, 1965	5,466	1,914	828	17,122	1,345	14,484	..
" " " 1964	4,531	1,750	989	16,014	1,288	13,699	..

(a) Discount and interest earned, net exchange, commissions and other items (including transfers from contingencies accounts) after deducting interest paid and accrued on deposits, rebate on bills current at balance date, amounts written off assets and losses on realization of assets, and transfers to the credit of contingencies accounts (out of which accounts provision for all bad and doubtful debts has been made). (b) Includes directors' fees. (c) Excludes accumulated profits and loss accounts. (d) Dividends paid or payable out of profits earned during the year. (e) Commonwealth of Australia. (f) Calculated at the net rate of the United Kingdom Income Tax payable by the bank (after taking double taxation relief into account) on the gross amount of dividends, viz.: Australia and New Zealand Bank Ltd., 4s. 1d. in the £stg on \$A4,638,480; The English, Scottish and Australian Bank Ltd., 4s. 11d. in the £stg on \$A1,757,000; United Kingdom Income Tax Relief to shareholders is limited to this rate. In addition to the taxes stated above the banks deducted the following further sums of United Kingdom Income Tax in accordance with the provisions of the Finance (No. 2) Act 1945, which authorizes deductions of tax from dividends at the full standard rate of United Kingdom Income Tax (8s. 3d. in the £stg); Australia and New Zealand Bank Ltd., \$A1,000,172; and the English, Scottish and Australian Bank Ltd., \$A292,838. (g) Gross dividend before deductions of United Kingdom Income Tax at standard rate (see footnote (f)). The gross return to shareholders based on the sum of United Kingdom Income Taxes payable by the bank and recouped from shareholders and the net dividend was: Australia and New Zealand Bank Ltd., 9.41 per cent.; The English, Scottish and Australian Bank Ltd., 8.333 per cent. The net return to shareholders based on the net dividend was: Australia and New Zealand Bank Ltd., 7.95 per cent. and the English, Scottish and Australian Bank Ltd., 5.875 per cent. (h) Four per cent on Preference shares and 10 per cent on Ordinary shares. (i) Not available. (j) Earnings represent gross earnings; expenses include interest paid, management expenses and provisions for contingencies. (k) Includes profit and loss on account of Savings Bank business.

All cheque-paying banks—average liabilities and assets within Australia

Particulars of the average liabilities and assets *within Australia* for all cheque-paying banks in Australia for the month of June 1965 are shown in the following tables. The details in these tables relate only to liabilities and assets within Australia and include the overseas banks, the Bank of China, Bank of New Zealand and Comptoir National d'Escompte de Paris. The tables on pages 688–92, Australian cheque-paying banks, relate to liabilities and assets both inside and outside Australia and exclude the overseas banks.

ALL CHEQUE-PAYING BANKS: AVERAGE LIABILITIES WITHIN AUSTRALIA(a)
MONTH OF JUNE 1965
(\$'000)

Bank	Deposits repayable in Australia				Balances due to other banks	Bills payable and all other liabilities to the public	Total
	Fixed	Current		Total			
		Bearing interest	Not bearing interest				
Major Trading Banks—							
Commonwealth Trading Bank of Australia	358,742	44,538	443,112	846,392	3,698	9,224	859,314
Australia and New Zealand Bank Ltd.	236,900	28,304	380,744	645,948	8,154	7,792	661,894
The Bank of Adelaide	32,906	3,684	47,710	84,300	1,978	918	87,196
Bank of New South Wales	411,644	80,676	646,382	1,138,702	1,254	18,122	1,158,078
The Commercial Bank of Australia Ltd.	169,166	21,666	266,258	457,090	3,772	8,098	468,960
The Commercial Banking Co. of Sydney Ltd.	173,482	36,646	268,034	478,162	5,958	49,430	533,550
The English, Scottish and Australian Bank Ltd.	117,628	26,704	230,336	374,668	1,746	19,826	396,240
The National Bank of Australasia Ltd. and The Queensland National Bank Ltd. (in voluntary liquidation) (b)	290,588	61,934	368,588	721,110	8,016	10,590	739,716
Total, Major Trading Banks	1,791,056	304,152	2,651,164	4,746,372	34,576	124,000	4,904,948
Other banks—							
Bank of China	8	..	44	52	..	..	52
Bank of New Zealand	1,276	110	6,306	7,692	112	242	8,046
The Brisbane Permanent Building and Banking Co. Ltd.	1,118	5,704	..	6,822	442	754	8,018
Comptoir National d'Escompte de Paris	982	2,254	2,978	6,214	2,234	192	8,640
The Rural Bank of New South Wales (General Bank Department)	91,098	38,952	80,478	210,528	1,546	22,082	234,156
State Bank of South Australia (General Banking Department)	12,846	1,542	17,662	32,050	..	57,498	89,548
The Rural and Industries Bank of Western Australia (Rural Department)	11,294	276	17,096	28,666	508	24,798	53,972
Total, other banks	118,622	48,838	124,564	292,024	4,842	105,566	402,432
Total, all banks	1,909,678	352,990	2,775,728	5,038,396	39,418	229,566	5,307,380

(a) Includes Papua and New Guinea. (b) Combined balances of The National Bank of Australasia Ltd. and The Queensland National Bank Ltd. Inter-bank balances resulting from amalgamation have been excluded.

ALL CHEQUE-PAYING BANKS: AVERAGE ASSETS WITHIN AUSTRALIA^(a)
MONTH OF JUNE 1965
(\$'000)

Bank	Coin, bullion, notes and cash at Reserve Bank	Commonwealth Government securities		Loans to author- ized dealers in short- term money market	Statutory reserve deposit account with Reserve Bank	Loans (b), advances and bills dis- counted	All other assets (c)	Total
		Treasury bills and notes	Other securi- ties					
Major Trading Banks—								
Commonwealth Trading Bank of Australia	29,424	7,606	212,338	15,454	115,164	420,926	58,640	859,552
Australia and New Zealand Bank Ltd.	29,650	2,448	88,840	9,940	89,624	377,898	47,338	645,738
The Bank of Adelaide	3,098	..	13,102	1,436	11,920	47,008	13,488	90,052
Bank of New South Wales	29,508	964	202,032	15,034	157,608	664,544	91,964	1,161,654
The Commercial Bank of Australia Ltd.	14,136	410	82,288	8,480	63,350	255,782	41,744	466,190
The Commercial Banking Co. of Sydney Ltd.	16,208	400	93,616	9,120	66,202	270,510	45,070	501,126
The English, Scottish and Australian Bank Ltd.	15,462	600	60,180	2,430	51,882	201,428	39,568	371,550
The National Bank of Aus- tralasia Ltd. and The Queensland National Bank Ltd. (in voluntary liquida- tion)(d)	22,406	8,214	118,770	15,506	100,330	393,000	73,044	731,270
<i>Total, Major Trading Banks</i>	<i>159,892</i>	<i>20,642</i>	<i>871,166</i>	<i>77,400</i>	<i>656,080</i>	<i>2,631,096</i>	<i>410,856</i>	<i>4,827,132</i>
Other banks—								
Bank of China	60	..	..	50	2	26	24	162
Bank of New Zealand	220	1,584	1,768	292	742	5,776	2,850	13,232
The Brisbane Permanent Building and Banking Co. Ltd.	56	..	1,010	..	136	8,522	2,116	11,840
Comptoir National d'Es- compte de Paris	158	..	800	32	214	6,956	2,706	10,866
The Rural Bank of New South Wales (General Bank Department)	5,716	..	50,386	14,822	..	188,664	18,276	277,864
State Bank of South Aus- tralia (General Banking Department)	1,430	..	8,730	..	..	79,400	5,944	93,504
The Rural and Industries Bank of Western Australia (Rural Department)	844	..	18,108	1,134	..	34,666	5,138	59,890
<i>Total, other banks</i>	<i>8,484</i>	<i>1,584</i>	<i>80,802</i>	<i>16,330</i>	<i>1,094</i>	<i>324,010</i>	<i>37,054</i>	<i>469,358</i>
Total, all banks	168,376	22,226	951,968	93,730	657,174	2,955,106	447,910	5,296,490

(a) Includes Papua and New Guinea. (b) Other than loans to authorized dealers in the short-term money market. (c) Includes local government and semi-governmental securities. (d) See footnote (b) to table on previous page.

The average liabilities and assets within Australia in the month of June 1961 to 1965 are shown in the following tables for the Major Trading Banks and all cheque-paying banks in Australia.

ALL CHEQUE-PAYING BANKS: AVERAGE LIABILITIES WITHIN AUSTRALIA(a)
JUNE 1961 TO 1965
(\$ million)

June—	Deposits repayable in Australia				Balances due to other banks	Bills payable and all other liabilities to the public	Total
	Fixed	Current		Total			
		Bearing interest	Not bearing interest				
Major Trading Banks—							
1961	942.4	198.6	2,289.2	3,430.3	19.4	59.8	3,509.5
1962	1,102.6	210.5	2,335.1	3,648.3	19.3	66.7	3,734.3
1963	1,227.6	235.6	2,383.8	3,846.9	24.7	74.9	3,946.5
1964	1,499.1	260.2	2,618.9	4,378.2	23.1	85.1	4,486.4
1965	1,791.1	304.2	2,651.2	4,746.4	34.6	124.0	4,904.9
All cheque-paying banks—							
1961	977.6	244.8	2,377.6	3,600.0	21.6	111.0	3,732.8
1962	1,155.4	250.1	2,431.3	3,836.8	22.1	142.5	4,000.4
1963	1,295.5	279.4	2,488.5	4,064.3	28.0	162.1	4,254.5
1964	1,604.8	305.3	2,739.2	4,649.3	26.7	180.5	4,856.5
1965	1,909.7	353.0	2,775.7	5,038.4	39.4	229.6	5,307.4

(a) Includes Papua and New Guinea.

ALL CHEQUE-PAYING BANKS: AVERAGE ASSETS WITHIN AUSTRALIA(a)
JUNE 1961 TO 1965
(\$ million)

June—	Coin, bullion, notes and cash at Reserve Bank	Commonwealth Government securities		Loans to authorized dealers in short-term money market	Statutory reserve deposit account with Reserve Bank	Loans(b), advances and bills discounted	All other assets (d)	Total
		Treasury bills and notes(c)	Other securities					
Major Trading Banks—								
1961	137.9	39.4	487.5	56.7	519.5	2,040.1	262.6	3,543.7
1962	140.2	24.8	728.7	53.0	389.1	2,062.7	389.6	3,788.3
1963	130.9	53.3	733.8	53.6	446.4	2,202.3	347.0	3,967.3
1964	136.1	50.4	865.3	56.6	677.7	2,333.2	347.9	4,467.2
1965	159.9	20.6	871.2	77.4	656.1	2,631.1	410.9	4,827.1
All cheque-paying banks—								
1961	144.5	40.1	527.7	68.8	520.6	2,238.0	292.5	3,832.1
1962	154.9	24.8	771.7	55.8	390.0	2,286.8	421.6	4,105.5
1963	138.5	58.8	784.6	58.0	447.3	2,464.8	380.0	4,331.9
1964	144.0	53.4	959.1	67.3	678.8	2,609.9	383.6	4,896.0
1965	168.4	22.2	952.0	93.7	657.2	2,955.1	447.9	5,296.5

(a) Includes Papua and New Guinea. (b) Excludes loans to authorized dealers in the short-term money market. (c) Prior to July 1962, seasonal securities. (d) Includes local government and semi-governmental securities.

All cheque-paying banks—ratios of assets and liabilities to total deposits

The following table shows, for the Major Trading Banks and for all cheque-paying banks, the ratios of selected assets and liabilities to total deposits for the month of June 1961 to 1965. The ratios are based on the average liabilities and assets for the month of June in the years shown.

**ALL CHEQUE-PAYING BANKS: RATIOS OF SELECTED AVERAGE ASSETS
AND LIABILITIES TO AVERAGE TOTAL DEPOSITS(a), JUNE 1961 TO 1965**

(Per cent)

June—	Coin, bullion, notes and cash at Reserve Bank	Commonwealth and State Government securities		Statutory reserve deposit account with Reserve Bank	Loans(c), advances and bills dis- counted	Deposits not bearing interest
		Treasury bills and notes(b)	Other			
Major Trading Banks—						
1961	4.0	1.2	14.2	15.1	59.5	66.7
1962	3.8	0.7	20.0	10.7	56.5	64.0
1963	3.4	1.4	19.1	11.6	57.2	62.0
1964	3.1	1.2	19.8	15.5	53.3	59.8
1965	3.4	0.4	18.4	13.8	55.4	55.9
All cheque-paying banks—						
1961	4.0	1.1	14.7	14.5	62.2	66.0
1962	4.1	0.6	20.1	10.2	59.6	63.4
1963	3.4	1.5	19.3	11.0	60.6	61.3
1964	3.1	1.2	20.6	14.6	56.1	58.9
1965	3.3	0.4	18.9	13.0	58.7	55.1

(a) Based on deposits and assets within Australia and excludes London Funds. (b) Prior to July 1962, seasonal securities. (c) Excludes loans to authorized dealers in short-term money market.

The following table shows, for each State and Territory, the proportion of non-interest bearing deposits to total deposits with the Major Trading Banks and with all cheque-paying banks for the month of June 1961 to 1965. The ratios are based on the average deposits for the month of June in the years shown.

**ALL CHEQUE-PAYING BANKS: PROPORTION OF NON-INTEREST
BEARING DEPOSITS TO TOTAL DEPOSITS, STATES AND TERRITORIES
JUNE 1961 TO 1965**

(Per cent)

June—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust. (a)
Major Trading Banks—									
1961	67.2	66.2	67.8	62.7	67.2	71.0	71.7	73.1	66.7
1962	65.0	63.2	63.3	60.8	65.6	67.6	71.5	72.9	64.0
1963	62.7	60.9	61.8	59.2	63.3	66.7	64.0	70.6	62.0
1964	60.5	58.6	60.7	56.7	59.6	65.2	64.2	68.2	59.8
1965	56.6	54.3	56.7	53.2	57.0	61.5	63.2	65.9	55.9
All cheque-paying banks—									
1961	65.6	66.2	67.0	62.5	68.4	71.0	71.7	73.1	66.0
1962	63.5	63.2	62.7	60.2	65.6	68.0	71.5	72.9	63.4
1963	61.1	61.0	61.0	58.6	64.4	66.7	64.0	70.6	61.3
1964	58.3	58.7	60.0	56.8	60.7	65.2	64.2	68.2	58.9
1965	54.8	54.3	56.2	53.4	57.3	61.5	63.2	65.9	55.1

(a) Includes Papua and New Guinea.

The ratio of advances to total deposits for each State and Territory for the Major Trading Banks and for all cheque-paying banks for the month of June 1961 to 1965 is shown in the following table. The ratios are based on the averages of deposits and advances for the month of June in the years shown.

ALL CHEQUE-PAYING BANKS: RATIO OF ADVANCES TO TOTAL DEPOSITS
STATES AND TERRITORIES, JUNE 1961 TO 1965

(Per cent)

June—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.(a)
Major Trading Banks—									
1961 . .	63.4	54.7	63.7	49.2	68.1	62.8	35.0	26.5	59.5
1962 . .	60.1	51.3	61.6	49.3	64.0	59.4	29.3	26.0	56.5
1963 . .	60.5	52.7	59.5	50.8	65.4	64.0	31.7	30.7	57.2
1964 . .	57.6	47.4	54.9	47.4	64.1	58.0	35.1	31.0	53.3
1965 . .	58.6	49.1	59.8	52.1	64.8	55.5	35.7	52.8	55.4
All cheque-paying banks—									
1961 . .	67.0	55.1	64.6	56.7	74.6	62.8	35.0	26.5	62.2
1962 . .	64.3	51.6	62.4	59.6	70.3	59.4	29.3	26.0	59.6
1963 . .	65.1	52.9	60.3	63.9	71.7	64.0	31.7	30.7	60.6
1964 . .	60.3	47.4	55.7	62.5	70.5	58.0	35.1	31.0	56.1
1965 . .	61.8	49.3	60.4	70.1	70.6	55.5	35.7	52.8	58.7

(a) Includes Papua and New Guinea.

Major Trading Banks—classification of bank advances within Australia

Classifications of bank advances of the Major Trading Banks outstanding for each State at 14 July 1965 and for Australia at July 1962 to 1965 are shown in the following tables.

Resident borrowers cover institutions (including branches of overseas institutions) engaged in business in Australia and persons permanently residing in Australia. Non-resident borrowers cover all other persons and institutions incorporated abroad, which, though represented, do not carry on business in Australia.

Advances to resident borrowers have been classified as business advances, advances to public authorities, personal advances, and advances to non-profit organizations.

Business advances have been further classified to the main industry of the borrower and include advances to partnerships, companies and other institutions engaged in business in Australia, advances to persons actively engaged in business on their own behalf if the advance is mainly for business purposes, advances to mutual, co-operative and benefit societies which distribute their profits or surpluses (if any) to members by way of dividends, rebates on charges for goods and services, or increased benefits.

Advances to public authorities cover advances to local and semi-governmental authorities including separately constituted government business undertakings but not the Commonwealth or State Governments. Personal advances cover advances to persons for purposes other than carrying on a business. Advances to non-profit organizations cover advances to organizations which are not carried on for the purpose of making a profit or gain to individual members, any income of the organization being used for the purposes of the organization or for the benefit of the community.

**MAJOR TRADING BANKS: CLASSIFICATION OF ADVANCES WITHIN
AUSTRALIA(a), STATES, 14 JULY 1965**

Classification	N.S.W. (b) \$ mill.	Vic. \$ mill.	Qld (a) \$ mill.	S.A. (c) \$ mill.	W.A. \$ mill.	Tas. \$ mill.	Aust. (u) \$ mill.	Pro- portion of total (per cent)	Term loan com- ponent \$ mill.
RESIDENT BORROWERS									
Business advances classified according to main industry of borrower—									
Agriculture, grazing and dairying . . .	207.3	110.2	148.5	45.8	60.7	11.6	584.1	21.8	60.7
Manufacturing . . .	253.1	196.6	71.1	29.2	11.0	11.8	572.9	21.4	83.9
Transport, storage and communication . . .	13.9	15.4	6.9	2.8	2.5	1.1	42.7	1.6	6.4
Finance—									
Building and housing societies . . .	20.1	18.8	2.3	0.6	0.6	0.8	43.2	1.6	..
Other . . .	44.6	30.3	10.4	5.3	2.4	3.7	96.7	3.6	0.3
Total, finance . . .	64.7	49.1	12.7	5.9	3.0	4.5	139.9	5.2	0.3
Commerce—									
Retail trade . . .	103.2	59.5	39.6	17.2	15.6	7.1	242.1	9.1	4.0
Wholesale trade(d) . . .	144.0	76.5	14.8	21.9	15.2	3.5	275.8	10.3	6.3
Total, commerce . . .	247.2	136.0	54.4	39.0	30.7	10.6	517.9	19.4	10.3
Building and construction . . .	34.1	24.3	11.4	4.6	8.0	2.0	84.5	3.2	3.0
Other business . . .	86.3	55.5	44.6	12.1	12.3	4.3	215.1	8.0	10.9
Unclassified . . .	8.4	6.8	2.5	3.3	1.2	0.6	22.8	0.9	1.9
Total, business advances—									
Companies(e) . . .	608.0	395.9	135.5	82.2	43.7	26.1	1,291.5	48.3	121.4
Other(e) . . .	306.9	198.1	216.6	60.6	85.7	20.3	888.2	33.2	56.0
Total . . .	914.9	594.0	352.1	142.8	129.4	46.4	2,179.7	81.5	177.3
Advances to public authorities(f) . . .	6.7	10.1	0.6	0.7	1.5	0.2	19.9	0.8	..
Personal advances—									
Building or purchasing own home (individuals) . . .	106.4	52.6	29.1	12.8	14.6	3.9	219.3	8.2	0.1
Other (including personal loans) . . .	89.5	57.4	28.4	12.7	13.0	5.0	206.1	7.7	..
Total, personal . . .	195.9	110.0	57.5	25.4	27.6	8.9	425.4	15.9	0.1
Advances to non-profit organizations . . .	23.9	11.0	7.9	1.9	3.6	0.9	49.1	1.8	0.1
Total, advances to resident borrowers . . .	1,141.4	725.1	418.1	170.9	162.2	56.4	2,674.2	100.0	177.5

NON-RESIDENT BORROWERS

Advances to non-resident borrowers . . .	0.4	0.4	..	0.1	0.1	..	0.9
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TOTAL ADVANCES TO ALL BORROWERS

Grand total . . .	1,141.8	725.5	418.1	171.0	162.3	56.4	2,675.1	100.0	177.5
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(a) Includes Papua and New Guinea. (b) Includes Australian Capital Territory. (c) Includes Northern Territory. (d) Includes temporary advances to woolbuyers. (e) The combined advances for these two groups are distributed over the industries above. (f) Includes local government and semi-governmental bodies.

**MAJOR TRADING BANKS: CLASSIFICATION OF ADVANCES WITHIN
AUSTRALIA(a), JULY 1962 TO 1965**

Classification	July—							
	1962		1963		1964		1965	
	Amount (\$ mill.)	Per cent	Amount (\$ mill.)	Per cent	Amount (\$ mill.)	Per cent	Amount (\$ mill.)	Per cent

RESIDENT BORROWERS

Business advances classified according to main industry of borrower—								
Agriculture, grazing and dairying	479.2	22.5	494.9	22.1	514.3	21.6	584.1	21.8
Manufacturing	418.9	19.7	435.4	19.5	433.0	18.2	572.9	21.4
Transport, storage and communication	28.0	1.3	32.1	1.4	40.9	1.7	42.7	1.6
Finance—								
Building and housing societies	46.8	2.2	44.6	2.0	44.0	1.9	43.2	1.6
Other	85.2	4.0	68.5	3.1	93.5	3.9	96.7	3.6
Total, finance	132.0	6.2	113.2	5.1	137.4	5.8	139.9	5.2
Commerce—								
Retail trade	222.8	10.4	230.0	10.3	232.6	9.8	242.1	9.1
Wholesale trade(b)	210.5	9.9	222.2	9.9	248.6	10.5	275.8	10.3
Total, commerce	433.2	20.3	452.3	20.2	481.2	20.3	517.9	19.4
Building and construction	61.2	2.8	65.8	2.9	72.8	3.1	84.5	3.2
Other business	155.5	7.3	185.1	8.3	197.9	8.3	215.1	8.0
Unclassified	16.9	0.8	18.6	0.9	19.4	0.8	22.8	0.9
Total, business advances—								
Companies(c)	963.8	45.2	1,011.3	45.2	1,087.3	45.7	1,291.5	48.3
Other(c)	761.1	35.7	786.0	35.2	809.5	34.1	888.2	33.2
Total	1,724.8	80.9	1,797.3	80.4	1,896.9	79.8	2,179.7	81.5
Advances to public authorities(d)	25.2	1.2	15.8	0.7	18.4	0.8	19.9	0.8
Personal advances classified according to main purpose of advance—								
Building or purchasing own home (individuals)	190.7	8.9	202.6	9.0	210.8	8.9	219.3	8.2
All other (including personal loans)	148.5	7.0	173.2	7.8	200.2	8.4	206.1	7.7
Total, personal	339.3	15.9	375.7	16.8	411.0	17.3	425.4	15.9
Advances to non-profit organizations	41.9	2.0	46.1	2.1	49.7	2.1	49.1	1.8
Total, advances to resident borrowers	2,131.2	100.0	2,235.0	100.0	2,375.8	100.0	2,674.2	100.0

NON-RESIDENT BORROWERS

<i>Advances to non-resident borrowers</i>	<i>0.5</i>	<i>..</i>	<i>0.6</i>	<i>..</i>	<i>1.0</i>	<i>..</i>	<i>0.9</i>	<i>..</i>
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TOTAL ADVANCES TO ALL BORROWERS

Grand total	2,131.8	100.0	2,235.6	100.0	2,376.8	100.0	2,675.1	100.0
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(a) Includes Papua and New Guinea. (b) Includes temporary advances to woolbuyers. (c) The combined advances for these two groups are distributed over the industries above. (d) Includes local government and semi-governmental bodies.

Major Trading Banks—classification of bank deposits within Australia

A classification of bank deposits (excluding deposits of Commonwealth and State Governments) of the Major Trading Banks for July 1962 to 1965 is given in the following table. The classification is similar to that used for advances (see page 697).

MAJOR TRADING BANKS: CLASSIFICATION OF DEPOSITS(a) WITHIN AUSTRALIA(b), JULY 1962 TO 1965

Classification	July—							
	1962		1963		1964		1965	
	Amount (\$ mill.)	Per cent	Amount (\$ mill.)	Per cent	Amount (\$ mill.)	Per cent	Amount (\$ mill.)	Per cent
Business deposits classified according to main industry of depositor—								
Agriculture, grazing and dairying	665.3	18.9	713.0	19.2	815.0	19.4	791.1	17.8
Manufacturing	259.9	7.4	254.6	6.9	309.9	7.4	283.8	6.4
Transport, storage and communication	60.2	1.7	60.5	1.6	70.5	1.7	72.8	1.6
Finance	280.8	8.0	283.5	7.7	308.0	7.3	311.9	7.0
Commerce	317.1	9.0	326.2	8.8	360.5	8.6	370.3	8.3
Building and construction	104.4	3.0	103.4	2.8	124.0	2.9	137.4	3.1
Other businesses	407.0	11.6	429.7	11.6	495.9	11.8	518.7	11.6
Unclassified	30.0	0.8	37.6	1.0	41.9	1.0	45.6	1.0
Total, business deposits—								
Companies(c)	813.6	23.1	813.8	22.0	998.4	23.8	982.2	22.0
Other(c)	1,311.1	37.3	1,394.6	37.6	1,527.3	36.3	1,549.5	34.8
Total	2,124.7	60.4	2,208.4	59.6	2,525.7	60.1	2,531.6	56.8
Deposits of public authorities	192.1	5.5	216.9	5.9	238.9	5.7	267.0	6.0
Personal deposits	1,037.6	29.5	1,101.8	29.7	1,231.5	29.3	1,425.8	32.0
Deposits of non-profit organizations	134.5	3.8	144.6	3.9	169.5	4.1	187.9	4.2
Total, resident depositors	3,488.8	99.2	3,671.7	99.1	4,165.5	99.2	4,412.3	99.0

NON-RESIDENT DEPOSITORS

<i>Total, non-resident depositors</i>	<i>29.5</i>	<i>0.8</i>	<i>31.6</i>	<i>0.9</i>	<i>34.9</i>	<i>0.8</i>	<i>43.8</i>	<i>1.0</i>
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TOTAL—ALL DEPOSITORS

Grand total	3,518.3	100.0	3,703.3	100.0	4,200.4	100.0	4,456.0	100.0
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(a) Excludes deposits of Commonwealth and State Governments. (b) Includes Papua and New Guinea.
(c) The combined deposits of these two groups are distributed over the industries above.

Major Trading Banks—new and increased lending commitments and overdraft limits

Particulars of new and increased lending commitments and overdraft limits of the Major Trading Banks are shown hereunder. The figures represent gross new lending commitments of banks and do not take account of cancellations and reductions of existing limits. Figures for cancellations and reductions of existing limits can be obtained from this series (after deducting term loan component and adjusting the weekly averages to a monthly basis) in conjunction with that of overdraft limits shown in the following table. However, these derived figures should be regarded as an approximation only, since there are unavoidable differences in the basis of compilation of the two series.

MAJOR TRADING BANKS: NEW AND INCREASED LENDING COMMITMENTS
AND OVERDRAFT LIMITS, 1961-62 TO 1964-65 AND JULY 1964
TO DECEMBER 1965

(Source: Reserve Bank of Australia)

(\$ million)

New and increased lending commitments(a)			Overdraft limits(b)	
Weekly average for period ending second Wednesday of—	Aggregate	Term loan component	Second Wednesday of—	Total out- standing
1961-62(c) . . .	20.0	..	1962 July . . .	3,465.6
1962-63(c) . . .	22.1	1.9	1963 „ . . .	3,642.7
1963-64(c) . . .	22.5	1.7	1964 „ . . .	3,801.0
1964-65(c) . . .	21.7	1.4	1965 „ . . .	3,932.2
1964-65—			1964-65—	
July . . .	22.3	2.6	July . . .	3,801.0
August . . .	23.3	1.7	August . . .	3,824.8
September . . .	23.3	1.6	September . . .	3,846.2
October . . .	21.3	1.6	October . . .	3,872.8
November . . .	20.0	1.3	November . . .	3,874.2
December . . .	22.9	1.6	December . . .	3,887.0
January . . .	17.6	0.8	January . . .	3,853.3
February . . .	23.2	1.4	February . . .	3,867.8
March . . .	20.8	0.9	March . . .	3,880.0
April . . .	25.4	2.3	April . . .	3,901.4
May . . .	22.7	0.9	May . . .	3,915.8
June . . .	19.5	1.1	June . . .	3,927.3
1965-66—			1965-66—	
July . . .	20.4	1.8	July . . .	3,932.2
August . . .	21.5	1.0	August . . .	3,941.0
September . . .	20.2	1.6	September . . .	3,956.6
October . . .	19.1	0.9	October . . .	3,974.2
November . . .	21.1	1.7	November . . .	3,987.7
December . . .	20.4	0.9	December . . .	3,995.3

(a) Excludes commitments in respect of temporary advances to woolbuyers. (b) Excludes limits in respect of temporary advances to woolbuyers and term loans. (c) Year ended second Wednesday of July.

The following table shows new and increased lending commitments in respect of the Major Trading Banks to selected industrial groups for January 1964 to July 1965. The classification is an abridgement of that used for bank advances (see page 697).

The table indicates the sources of demand for new lending. If taken in conjunction with the classification of overdraft limits outstanding (see below), it also shows the approximate rate of cancellations and reductions of limits in the main industrial groups.

MAJOR TRADING BANKS: NEW AND INCREASED LENDING COMMITMENTS TO SELECTED INDUSTRIAL GROUPS(a), JANUARY 1964 TO JULY 1965

(Source: Reserve Bank of Australia)

(\$ million)

Classification	Six months ended second Wednesday of—							
	Jan. 1964		July 1964		Jan. 1965		July 1965	
	Aggregate	Term loan component	Aggregate	Term loan component	Aggregate	Term loan component	Aggregate	Term loan component
Business—								
Agriculture, grazing and dairying	103.4	14.6	120.2	18.1	108.8	15.1	113.0	11.9
Manufacturing	96.3	14.4	110.6	21.4	104.4	17.7	120.5	16.2
Finance	26.0	0.2	22.6	0.1	28.4	..	18.0	0.3
Commerce(a)	94.6	2.7	90.1	2.6	87.4	2.3	84.2	1.1
Building and construction .	29.0	1.0	30.2	1.1	28.3	0.6	24.8	0.2
Persons—								
Advances for building or purchase of own home (to individuals)	68.3	..	70.6	..	70.0	..	67.9	..
All other (including personal loans)	61.3	..	73.6	..	63.0	..	63.4	..
All other	82.1	3.8	88.3	5.9	85.6	2.2	81.5	7.8
Total	561.1	36.6	606.3	49.1	575.9	37.9	573.4	37.5

(a) Excludes commitments in respect of temporary advances to woolbuyers.

The following table shows the classification of overdraft limits outstanding in respect of the Major Trading Banks for July 1962 to July 1965. The classification is similar to that used for advances (see page 697). The table shows the trend of net new lending classified by industry. If used in conjunction with the classification of bank advances, it shows the range of limits usage by industry, and if used in conjunction with the classification of new and increased lending commitments (see above), it shows the approximate rate of cancellations and reductions of limits by industry.

MAJOR TRADING BANKS: CLASSIFICATION OF OVERDRAFT LIMITS OUTSTANDING(a), JULY 1962 TO JULY 1965

(Source: Reserve Bank of Australia)

(\$ million)

Classification	Second Wednesday of—						
	July 1962	Jan. 1963	July 1963	Jan. 1964	July 1964	Jan. 1965	July 1965

RESIDENT BORROWERS

Business overdraft limits classified according to main industry of borrower—							
Agriculture, grazing and dairying—							
Mainly sheep grazing	289.6	289.9	290.4	290.1	283.8	289.5	299.3
Mainly wheat growing	53.8	57.6	56.3	62.0	62.8	69.5	71.6
Mainly dairying and pig raising	103.2	103.0	105.3	105.5	106.5	103.8	102.8
Other	152.8	157.1	161.8	166.3	173.9	177.1	186.3
Total, agriculture, etc.	599.5	607.6	613.9	623.9	626.9	639.9	660.2

(a) Excludes limits in respect of temporary advances to woolbuyers and term loans.

MAJOR TRADING BANKS: CLASSIFICATION OF OVERDRAFT LIMITS
OUTSTANDING(a), JULY 1962 TO JULY 1965—continued

(\$ million)

Classification	Second Wednesday of—						
	July 1962	Jan. 1963	July 1963	Jan. 1964	July 1964	Jan. 1965	July 1965

RESIDENT BORROWERS—continued

Manufacturing	890.2	895.7	891.9	914.6	924.4	933.5	995.3
Transport, storage and communication	55.8	58.0	65.6	62.4	63.8	68.7	62.8
Finance—							
Building and housing societies	64.8	64.3	62.2	60.5	61.0	60.5	58.1
Pastoral finance companies	85.7	80.4	89.7	87.7	89.0	92.6	87.2
Hire purchase and other finance companies	70.5	82.8	88.6	85.8	85.6	86.2	84.3
Other	74.2	80.1	79.6	82.7	79.6	82.5	72.1
Total, finance	295.3	307.7	320.1	316.8	315.2	321.8	301.7
Commerce(a)—							
Retail trade	344.5	348.3	362.6	363.3	366.9	362.1	375.1
Wholesale trade	271.3	267.2	278.7	284.8	285.9	277.2	289.5
Total, commerce(a)	615.8	615.4	641.4	648.1	652.7	639.3	664.6
Building and construction	95.1	98.2	107.3	110.7	117.6	117.3	123.3
Other businesses—							
Mining	30.2	30.4	34.4	34.6	35.3	40.4	45.1
Other	221.2	227.1	246.9	256.0	281.3	291.2	283.5
Total, other businesses	251.4	257.5	281.3	290.6	316.6	331.5	328.5
Unclassified	19.2	19.6	20.7	22.2	22.1	25.5	24.3
Total, business overdraft limits	2,822.4	2,859.9	2,942.0	2,989.3	3,039.4	3,077.6	3,160.6
Overdraft limits of public authorities	118.1	120.9	116.0	126.4	126.1	137.2	122.4
Personal overdraft limits—							
Building and purchasing own home	239.0	245.5	257.0	263.9	268.3	269.9	272.9
Other	200.3	208.7	231.8	247.0	266.4	267.3	274.0
Total, personal overdraft limits	439.3	454.2	488.9	510.9	534.7	537.1	546.9
Overdraft limits of non-profit organizations	84.1	88.6	95.1	98.7	98.5	99.9	100.2
Total, overdraft limits of resident borrowers	3,463.9	3,523.7	3,642.0	3,725.3	3,798.7	3,851.8	3,930.2

NON-RESIDENT BORROWERS

Overdraft limits of non-resident borrowers	1.6	1.7	0.7	1.7	2.2	1.5	2.0
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TOTAL OVERDRAFT LIMITS

Grand total	3,465.5	3,525.4	3,642.7	3,727.0	3,801.0	3,853.3	3,932.2
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(a) Excludes limits in respect of temporary advances to woolbuyers and term loans.

Major Trading Banks—bank advances and fixed deposits, by rate of interest

The following table shows the proportions of total advances at each rate of interest at the end of June 1962 to 1965.

MAJOR TRADING BANKS: ADVANCES BY RATE OF INTEREST(a)
JUNE 1962 TO 1965

(Source: Reserve Bank of Australia)

(Proportion at each rate to total—per cent)

Interest rate per annum	End of—			
	June 1962	June 1963	June 1964	June 1965
5 per cent and less	10.8	11.7	10.9	4.0
More than 5 per cent but less than 5½ per cent	9.8	10.9	2.4	2.3
5½ per cent	6.3	7.9	8.0	5.0
More than 5½ per cent but less than 6 per cent	9.1	10.6	6.4	7.9
6 per cent	17.9	22.3	12.3	6.7
More than 6 per cent but less than 6½ per cent	4.7	7.6	6.9	9.1
6½ per cent	18.0	29.0	21.4	10.0
More than 6½ per cent but less than 7 per cent	3.4	..	4.9	17.1
7 per cent	20.0	..	26.7	10.7
More than 7 per cent and up to 7½ per cent . . . . .	..	..	..	27.1
Total	100.0	100.0	100.0	100.0

(a) Excludes term loans.

NOTE.—On 17 November 1960 the maximum rate chargeable on advances was 7 per cent, but the average rate of interest on all advances was not to exceed 6 per cent. The maximum average rate requirement was discontinued on 13 April 1962. The maximum rate chargeable on advances was reduced from 7 per cent per annum to 6½ per cent per annum on 1 April 1963, and was raised to 7 per cent per annum on 27 April 1964 and to 7½ per cent per annum on 10 March 1965.

The following table shows the proportions of total fixed deposits at each rate of interest at the end of June 1961 to 1965.

MAJOR TRADING BANKS: FIXED DEPOSITS(a), BY RATE OF INTEREST
JUNE 1961 TO 1965

(Source: Reserve Bank of Australia)

(Proportion at each rate to total—per cent)

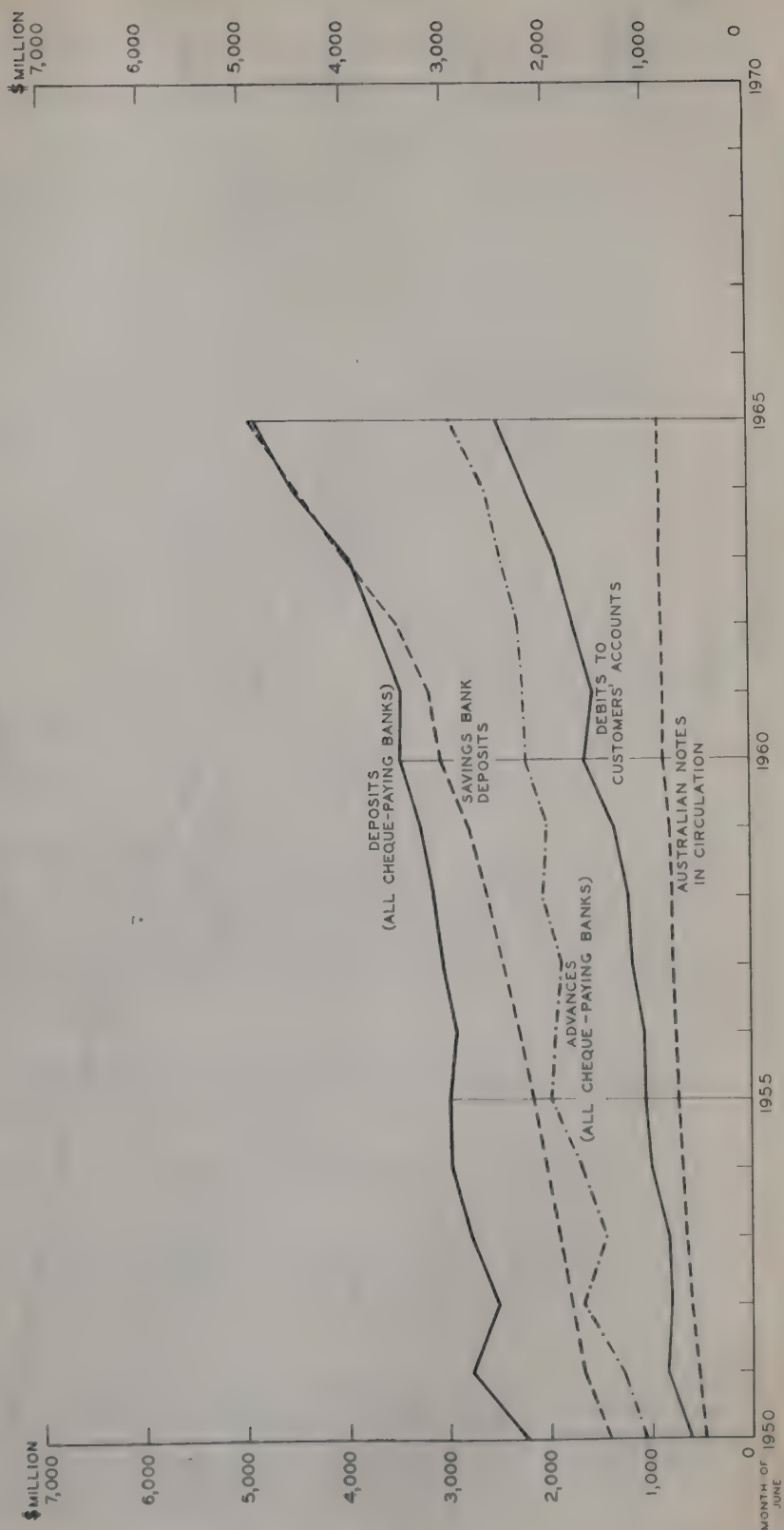
Interest rate per annum	End of—				
	June 1961	June 1962	June 1963	June 1964	June 1965
2½	2.2	..	..	..	..
3 . . . . .	..	..	..	0.2	..
3½ . . . . .	..	..	17.6	5.6	..
3½	34.2	7.2	20.5	51.1	0.2
3½ . . . . .	..	17.1	4.0	20.7	2.3
4	21.6	26.5	57.9	22.4	32.6
4½ . . . . .	..	47.9	..	..	37.0
4½	42.0	1.3	..	..	27.9
Total	100.0	100.0	100.0	100.0	100.0

(a) Excludes Commonwealth and State Government fixed deposits.

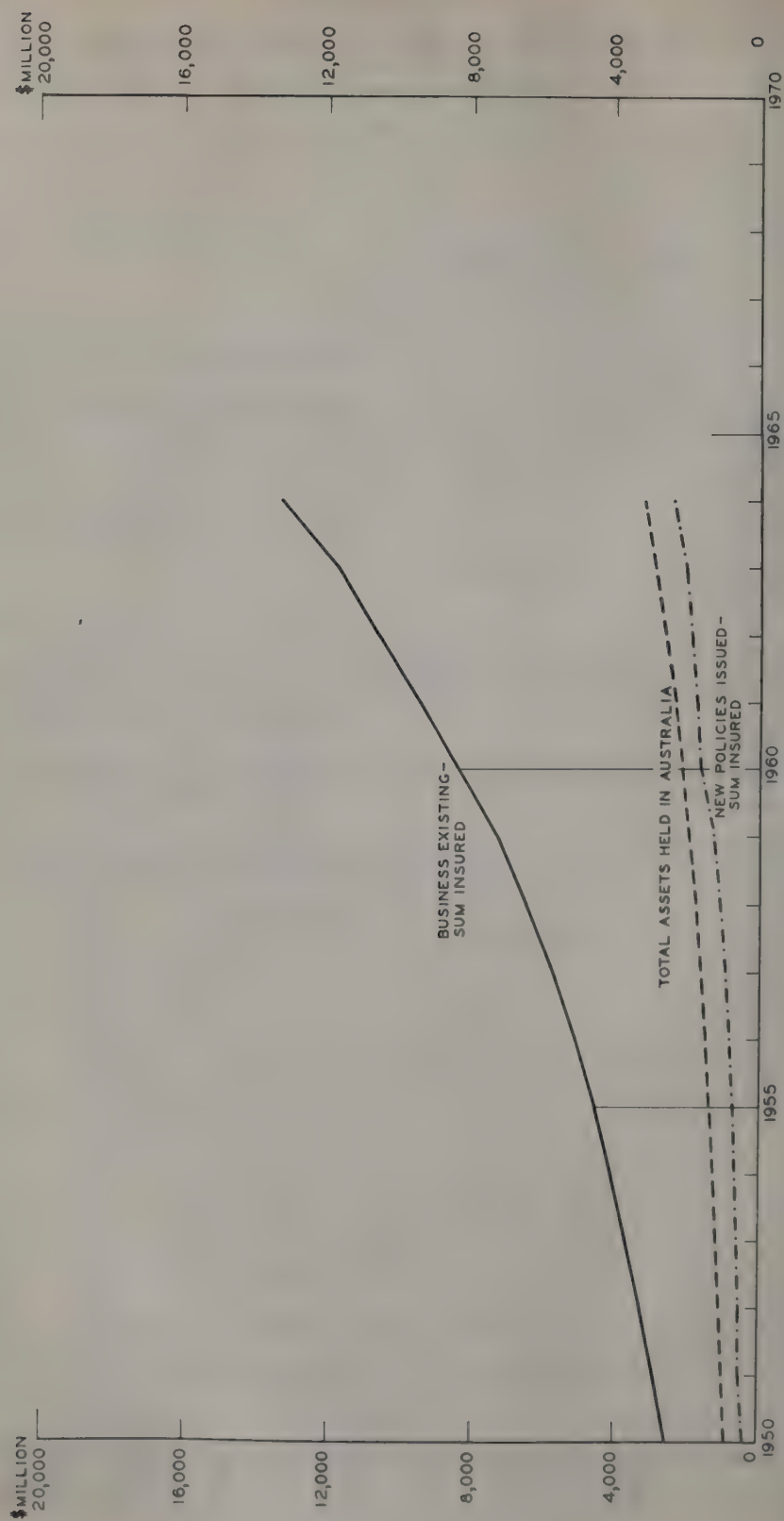
Cheque-paying banks—interest rates on deposits

Particulars of interest rates since 1960 for cheque-paying bank fixed deposits are shown in the following table.

BANKING: AUSTRALIA, 1950 TO 1965



LIFE INSURANCE: AUSTRALIA 1950 TO 1964



CHEQUE-PAYING BANK FIXED DEPOSIT RATES SINCE 1960: AUSTRALIA
(Per cent per annum)

Date from which operative	Deposits for—			
	3 months but less than 12 months		12 months	
1960—17 November . . .	4		4½	
1961—1 July . . .	..		4½	
1962—13 April . . .	3½		4	
			12 months to 15 months	
10 September . . .	..		4	
1963—1 April . . .	3½		3½	
	30 days but less than 3 months	3 months but less than 12 months	4	
1964—8 April . . .	3½	3½	4	
			12 months to 18 months	Over 18 months to 24 months
29 September . . .	..	..	4	4½
1965—10 March . . .	4½	4½	4½	4½
At 30 June . . .	4½	4½	4½	4½

Cheque-paying banks—debits to customers' accounts

Statistics of debits to customers' accounts have been collected since September 1945. Generally they represent the total of all cheques drawn by the customers of the banks. In the following table the average weekly debits to customers' accounts of all cheque-paying banks (including the Rural Credits Department of the Reserve Bank and the Commonwealth Development Bank) are shown for each State for the years 1960-61 to 1964-65. In this table debits to accounts of Australian Governments in capital cities are excluded, as they are subject to abnormal influences and are not uniform for each State.

CHEQUE-PAYING BANKS: AVERAGE WEEKLY DEBITS TO CUSTOMERS' ACCOUNTS, STATES AND TERRITORIES, 1960-61 TO 1964-65

(Excluding debits to Commonwealth and State Government accounts in capital cities)

(\$ million)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1960-61 . . .	644.9	565.9	163.8	116.0	75.7	32.5	2.0	6.7	1,607.5
1961-62 . . .	654.0	590.0	164.4	116.2	80.4	32.1	2.2	7.9	1,647.1
1962-63 . . .	713.1	650.5	185.1	131.6	88.2	35.1	2.5	10.2	1,816.4
1963-64 . . .	824.8	733.2	213.2	155.1	96.4	37.1	2.8	11.5	2,073.9
1964-65 . . .	953.2	841.2	237.4	173.7	108.3	42.1	3.5	14.8	2,374.1

Trading bank charges

In October 1962 the trading banks instituted a system of charges on current accounts, and abolished the interstate exchange rates obtaining prior to this date. Details of interstate exchange rates prior to October 1962 may be found in Year Book No. 48, page 785. Charges on current account comprise a basic maintenance fee, a ledger activity fee and a cheque collection fee, each calculated on a quarterly basis and debited as a composite item to accounts four times a year. Details of these charges are shown on page 706.

Quarterly charge

Basic maintenance current account. Fifty cents quarterly (non-rebated).

Ledger activity fee. Up to $\frac{1}{2}$ folio (20 entries), 25 cents; over $\frac{1}{2}$ folio to 1 folio, 75 cents; over 1 folio to 2 folios, \$2; over 2 folios to 3 folios, \$4.50; over 3 folios to 4 folios, \$7; over 4 folios to 5 folios, \$9.50; over 5 folios to 6 folios, \$12; over 6 folios to 7 folios, \$14; over 7 folios to 15 folios, \$14, plus \$1.75 per folio or part thereof exceeding 7; over 15 folios to 35 folios, \$28, plus \$1.50 per folio or part thereof exceeding 15; over 35 folios, \$58, plus \$1 per folio or part thereof exceeding 35. Rebates will be allowed for minimum quarterly credit balances as follows: \$600, 1 free folio; \$1,200, 2 free folios; \$2,000, 3 free folios; \$3,200, 4 free folios; \$5,000, 5 free folios; thereafter 1 additional free folio for each \$1,000 minimum credit balance. Where rebates are applicable the number of free folios will be deducted before the activity fee is calculated.

Collection fee on cheques, etc., deposited. Up to 20 cheques per quarter, free; 21 to 100, 50 cents, plus 25 cents per 10 cheques or part thereof exceeding 20; 101 to 500, \$2.50, plus \$1.25 per each 50 or part thereof exceeding 100; 501 to 1,000, \$12.50, plus \$2.50 for each 100 or part thereof exceeding 500; 1,001 to 10,000, \$25, plus \$12 per each 500 or part thereof exceeding 1,000; 10,001 to 50,000, \$240 plus \$15 per each 1,000 or part thereof exceeding 10,000; 50,001 to 100,000, \$850 plus \$50 per each 5,000, or part thereof exceeding 50,000; 100,001 to 150,000, \$1,350, plus \$80 per each 10,000 or part thereof exceeding 100,000; over 150,000, \$1,750, plus \$60 per each 20,000 or part thereof exceeding 150,000.

Savings banks**Savings banks in Australia**

For information on the origin of savings banks in Australia and the facilities currently available, see Year Book No. 46, page 779 and earlier issues.

All savings banks, including trustee savings banks, but not State savings banks, are subject to the *Banking Act* 1959-1965. Details of this Act and the special provisions applying to savings banks are given in Year Book No. 46, pages 759-60.

Commonwealth Savings Bank. The Commonwealth Savings Bank of Australia was established as a separate institution on 9 June 1928, having functioned previously as a department of the Commonwealth Bank (for particulars of the origin of the Savings Bank Department and the extension of its services see Year Book No. 46, page 782, and earlier issues). It has since then operated independently, publishing its own balance-sheets and profit and loss accounts. The *Commonwealth Bank Act* 1927, which provided for the establishment of the Commonwealth Savings Bank as a separate institution, provided for a Commission of three members to manage the savings bank. This Commission was never appointed, and the *Commonwealth Bank Act* 1945 placed the control of the Commonwealth Savings Bank under the Governor of the Commonwealth Bank. Under the provisions of the *Commonwealth Banks Act* 1959-1961, which came into operation on 14 January 1960, the Commonwealth Savings Bank was maintained in the same form, but was placed under the control of the Commonwealth Banking Corporation (see also page 681).

State savings banks. State savings banks at present operating (with date of establishment shown in parentheses) are: The State Savings Bank of Victoria (1841); The Savings Bank of South Australia (1848); the Savings Bank Division of The Rural and Industries Bank of Western Australia (1956).

Trustee savings banks. Two trustee savings banks, The Hobart Savings Bank and Launceston Bank for Savings, operate within Tasmania. These banks commenced business in 1845 and 1835 respectively.

Private savings banks. The Bank of New South Wales Savings Bank Ltd., the Australia and New Zealand Savings Bank Ltd., and the C.B.C. Savings Bank Ltd. commenced business in 1956, the E.S. & A. Savings Bank Ltd. in 1961, The Bank of Adelaide Savings Bank Ltd., The National Bank Savings Bank Ltd., and The Commercial Savings Bank of Australia Ltd. in 1962.

Branches and agencies

Savings banks. The numbers of branches and agencies of the various savings banks in Australia at 30 June 1965 are given in the following table.

SAVINGS BANKS: NUMBER OF BRANCHES AND AGENCIES, 30 JUNE 1965

Bank	Branches	Agencies
Commonwealth Savings Bank	897	8,049
Australia and New Zealand Savings Bank Ltd.	561	712
The Bank of Adelaide Savings Bank Ltd.	93	89
Bank of New South Wales Savings Bank Ltd.	841	3,016
The Commercial Savings Bank of Australia Ltd.	458	281
C.B.C. Savings Bank Ltd.	438	100
E.S. & A. Savings Bank Ltd.	396	121
The National Bank Savings Bank Ltd.	708	317
The State Savings Bank of Victoria	484	694
The Savings Bank of South Australia	123	764
The Rural and Industries Bank of Western Australia	48	258
Launceston Bank for Savings	21	20
The Hobart Savings Bank	24	51
Total	5,092	14,472

Savings banks—balance-sheets

The information in the following tables for the Commonwealth Savings Bank, the trustee savings banks and the private savings banks has been obtained from the annual returns lodged with the Commonwealth Statistician under section 53 of the *Banking Act* 1959–1965, whereas that for State savings banks has been compiled from information in their annual reports.

SAVINGS BANKS: LIABILITIES(a), 1964 AND 1965
(\$'000)

Bank	Paid-up capital	Reserve funds (used in the business of the bank)	Balance of profit and loss account	Total shareholders' funds	Depositors' balances	Balances due to other banks	Bills payable and all other liabilities (b)	Total
1965—								
Commonwealth Savings Bank of Australia . . . . .	..	29,810	..	c 29,810	2,199,803	2,117	71,975	2,303,705
State savings banks(d)—								
The State Savings Bank of Victoria(e)	..	26,152	1,126	c 27,278	839,574	..	43,114	909,966
The Savings Bank of South Australia . . . . .	..	23,048	336	c 23,384	322,841	3,565	283	350,073
Total, State savings banks	..	49,200	1,462	c 50,662	1,162,415	3,565	43,397	1,260,039
Trustee savings banks—								
The Hobart Savings Bank . . . . .	..	1,930	115	(c) 2,045	39,540	3	164	41,752
Launceston Bank for Savings . . . . .	..	1,880	108	(c) 1,988	34,137	2	214	36,341
Total, trustee savings banks	..	3,810	223	(c) 4,033	73,677	5	378	78,093
Private savings banks—								
Australia and New Zealand Savings Bank Ltd.	4,016	3,400	512	7,928	304,578	..	11,604	324,110
The Bank of Adelaide Savings Bank Ltd.	1,000	150	106	1,256	18,689	..	391	20,337
Bank of New South Wales Savings Bank Ltd.	7,000	5,500	1,378	13,878	636,714	..	18,489	669,081
The Commercial Savings Bank of Australia Ltd.	2,000	450	217	2,667	95,516	..	776	98,959
C.B.C. Savings Bank Ltd.	4,000	2,250	241	6,491	186,388	..	4,251	197,130
E.S. & A. Savings Bank Ltd.	1,000	900	79	1,979	95,029	..	1,292	98,301
The National Bank Savings Bank Ltd.	2,000	500	468	2,968	156,492	..	2,948	162,408
Total, private savings banks	21,016	13,150	3,001	37,167	1,493,407	..	39,751	1,570,325
Total, all savings banks, 1965	21,016	95,970	4,687	121,673	4,929,301	5,687	155,502	5,212,162
Total, all savings banks, 1964	17,016	86,784	4,502	108,302	4,541,987	4,671	148,083	4,803,042

(a) At various balance-sheet dates during 1965—see table on page 710. (b) Includes provision for contingencies. (c) Total reserve funds. (d) Excludes Savings Bank Division of the Rural and Industries Bank of Western Australia. (e) Includes Crédit Foncier Department.

SAVINGS BANKS: ASSETS(a), 1964 AND 1965

(\$'000)

Bank	Coin, bullion and notes	Deposits with Reserve Bank	Deposits in Australia with trading banks	Money at short call overseas	Australian public securities			Other public securities
					Commonwealth and States		Local and semi- govt author- ities	
					Treasury bills and notes	Other securities		
1965—								
Commonwealth Savings Bank of Australia	3,100	220,610	25,201	..	1,789	1,161,577	278,900	1,048
State savings banks(b)—								
The State Savings Bank of Victoria(c)	4,970	47,778	43,494	..	..	224,230	290,740	..
The Savings Bank of South Australia	470	10,418	20,612	..	..	132,249	63,066	..
<i>Total, State savings banks</i>	<i>5,440</i>	<i>58,196</i>	<i>64,106</i>	<i>..</i>	<i>..</i>	<i>356,479</i>	<i>353,806</i>	<i>..</i>
Trustee savings banks—								
The Hobart Savings Bank Launceston Bank for Savings	99 63	400 101	2,704 2,960	.. ..	.. ..	7,750 9,493	18,020 10,888	....
<i>Total, trustee savings banks</i>	<i>161</i>	<i>501</i>	<i>5,664</i>	<i>..</i>	<i>..</i>	<i>17,243</i>	<i>28,908</i>	<i>..</i>
Private savings banks—								
Australia and New Zea- land Savings Bank Ltd. The Bank of Adelaide . . Savings Bank Ltd. . . . .	.. ..	30,550 1,900	6,917 248	.. ..	.. ..	95,061 6,032	101,950 3,727	514 ..
Bank of New South Wales Savings Bank Ltd.	2,000	63,000	9,737	..	..	210,811	183,241	1,768
The Commercial Savings Bank of Australia Ltd. . .	..	9,700	1,235	..	..	34,776	28,143	..
C.B.C. Savings Bank Ltd. E.S. & A. Savings Bank Ltd. . . . .	.. 10	18,443 9,980	2,870 3,390	.. ..	600 ..	91,003 30,989	37,678 28,590	....
The National Bank Savings Bank Ltd. . . . .	..	17,000	3,591	..	..	60,316	47,524	..
<i>Total, private savings banks</i>	<i>2,010</i>	<i>150,573</i>	<i>27,988</i>	<i>..</i>	<i>600</i>	<i>528,988</i>	<i>430,851</i>	<i>2,282</i>
<i>Total, all savings banks, 1965</i>	<i>10,711</i>	<i>429,880</i>	<i>122,959</i>	<i>..</i>	<i>2,389</i>	<i>2,064,287</i>	<i>1,092,465</i>	<i>3,330</i>
<i>Total, all savings banks, 1964</i>	<i>10,116</i>	<i>431,430</i>	<i>131,039</i>	<i>..</i>	<i>10,187</i>	<i>1,991,518</i>	<i>961,499</i>	<i>3,043</i>

(a) For dates of balance-sheets see table on page 710. (b) Excludes Savings Bank Division of the Rural and Industries Bank of Western Australia. (c) Includes Crédit Foncier Department.

Table continued on next page.

SAVINGS BANKS: ASSETS(a), 1964 AND 1965—continued
(\$'000)

Bank	Other securities	Loans to authorized dealers in short-term money market	Cheques and bills of, and balances with and due from, other banks	Loans(b), advances and bills discounted	Bank premises, furniture and sites	Bills receivable and remittances in transit	All other assets	Total
1965—								
Commonwealth Savings Bank of Australia . . . . .	..	2,820	1,308	546,871	37,406	117	22,956	2,303,705
State savings banks(c)—								
The State Savings Bank of Victoria(d) . . . . .	..	7,800	..	267,464	12,400	..	11,090	909,966
The Savings Bank of South Australia . . . . .	..	1,000	..	110,704	4,664	(e)	6,891	350,073
<i>Total, State savings banks</i>	..	8,800	..	378,168	17,064	..	17,981	1,260,039
Trustee savings banks—								
The Hobart Savings Bank . . . . .	..	1,950	63	9,305	815	16	630	41,752
Launceston Bank for Savings . . . . .	..	750	32	10,591	877	..	586	36,341
<i>Total, trustee savings banks</i>	..	2,700	96	19,896	1,692	16	1,216	78,093
Private savings banks—								
Australia and New Zealand Savings Bank Ltd.	5,073	3,700	488	77,248	..	..	2,608	324,110
The Bank of Adelaide Savings Bank Ltd. . . . .	..	2,000	..	5,791	480	..	160	20,337
Bank of New South Wales Savings Bank Ltd.	496	8,080	6,094	172,803	4,800	..	6,251	669,081
The Commercial Savings Bank of Australia Ltd. . . . .	..	200	..	23,948	..	..	957	98,959
C.B.C. Savings Bank Ltd. . . . .	..	..	..	45,335	..	..	1,202	197,130
E.S. & A. Savings Bank Ltd. . . . .	..	2,720	..	21,274	423	..	925	98,301
The National Bank Savings Bank Ltd. . . . .	..	2,400	..	30,179	..	..	1,398	162,408
<i>Total, private savings banks</i>	5,570	19,100	6,582	376,578	5,703	..	13,501	1,570,325
Total, all savings banks, 1965	5,570	33,420	7,986	1,321,513	61,865	133	55,654	5,212,162
Total, all savings banks, 1964	4,101	42,348	7,790	1,103,554	56,388	158	49,875	4,803,042

(a) For dates of balance-sheets see table on page 710. (b) Other than loans to authorized dealers in the short-term money market. (c) Excludes Savings Bank Division of the Rural and Industries Bank of Western Australia. (d) Includes Crédit Foncier Department. (e) Not available. Included in All other assets.

Savings banks—profit and loss accounts

Details of the profit and loss accounts of all savings banks are given below for the years 1964 and 1965.

SAVINGS BANKS: PROFIT AND LOSS, APPROPRIATION OF PROFITS AND DIVIDENDS, 1964 AND 1965

(\$'000)

Bank	Year ended	Profit and loss			
		Net earnings (a)	Expenses (b)	Income, land and other taxes and payments in lieu of taxes	Net profit
1965—					
Commonwealth Savings Bank of Australia .	30.6.65	36,924	28,489	423	8,012
State savings banks(c)—					
The State Savings Bank of Victoria(d)	30.6.65	17,712	14,595	n.a.	2,117
The Savings Bank of South Australia .	30.6.65	5,252	3,669	n.a.	1,583
<i>Total, State savings banks . . .</i>	<i>..</i>	<i>22,964</i>	<i>18,264</i>	<i>n.a.</i>	<i>3,700</i>
Trustee savings banks—					
The Hobart Savings Bank . . .	31.8.65	632	447	22	163
Launceston Bank for Savings . . .	31.8.65	573	434	12	127
<i>Total, trustee savings banks . . .</i>	<i>..</i>	<i>1,205</i>	<i>881</i>	<i>34</i>	<i>290</i>
Private savings banks—					
Australia and New Zealand Savings Bank Ltd.	30.9.65	5,317	3,131	1,100	1,086
The Bank of Adelaide Savings Bank Ltd. .	30.9.65	361	206	53	102
Bank of New South Wales Savings Bank Ltd.	30.9.65	11,997	8,402	1,470	2,125
The Commercial Savings Bank of Australia Ltd.	30.6.65	1,544	912	292	339
C.B.C. Savings Bank Ltd. . . .	30.6.65	3,395	1,798	754	842
E.S. & A. Savings Bank Ltd. . . .	30.6.65	1,524	838	320	366
The National Bank Savings Bank Ltd. .	30.9.65	2,718	1,989	258	472
<i>Total, private savings banks . . .</i>	<i>..</i>	<i>26,856</i>	<i>17,277</i>	<i>4,248</i>	<i>5,332</i>
Total, all savings banks, 1965 . . .	..	87,949	64,911	4,705	18,334
" " " " 1964(e) . . .	..	83,248	59,204	n.a.	19,166

(a) Discount and interest earned, net exchange, commissions and other items (including transfers from contingencies accounts), after deducting interest paid and accrued on deposits, rebate on bills current at balance date, amounts written off assets, and losses on realization of assets and transfers to the credit of contingencies accounts (out of which accounts provisions for all bad and doubtful debts have been made). (b) Includes directors' fees. (c) Excludes Savings Bank Division of the Rural and Industries Bank of Western Australia. (d) Includes Crédit Foncier Department. (e) Balancing dates as in 1965.

Table continued on next page.

SAVINGS BANKS: PROFIT AND LOSS, APPROPRIATION OF PROFITS AND DIVIDENDS, 1964 AND 1965—continued

(\$'000)

Bank	Year ended	Profits appropriated to—						
		Reserve funds (a)	Written off bank premises	Other appropriations	Dividends (b)			
					Gross	British income taxes payable by bank and recouped from shareholders	Net	Rate per annum per cent
1965—								
Commonwealth Savings Bank of Australia	30.6.65	2,404	1,142	(c) 4,466	..	..	..	..
State savings banks (d)—								
The State Savings Bank of Victoria (e)	30.6.65	2,073	1,148	..	..	..	..	..
The Savings Bank of South Australia	30.6.65	1,580	(f)	..	..	..	..	..
Total, State savings banks . . . . .	..	3,653	1,148	..	..	..	..	..
Trustee savings banks—								
The Hobart Savings Bank	31.8.65	130	23	10	..	..	..	..
Launceston Bank for Savings	31.8.65	60	60	7	..	..	..	..
Total, trustee savings banks . . . . .	..	190	83	17	..	..	..	..
Private savings banks—								
Australia and New Zealand Savings Bank Ltd.	30.9.65	600	..	..	482	..	482	12
The Bank of Adelaide Savings Bank Ltd.	30.9.65	50	..	..	..	..	..	..
Bank of New South Wales Savings Bank Ltd.	30.9.65	1,000	312	..	700	..	700	10
The Commercial Savings Bank of Australia Ltd.	30.6.65	300	..	..	..	..	..	..
C.B.C. Savings Bank Ltd.	30.6.65	400	..	..	400	..	400	10
E.S. & A. Savings Bank Ltd.	30.6.65	400	..	..	..	..	..	..
The National Bank Savings Bank Ltd.	30.9.65	300	..	..	100	..	100	5
Total, private savings banks . . . . .	..	3,050	312	..	1,682	..	1,682	..
Total, all savings banks, 1965 . . . . .	..	9,297	2,685	4,483	1,682	..	1,682	..
Total, all savings banks, 1964 (g) . . . . .	..	9,561	2,273	4,923	1,182	..	1,182	..

(a) Excludes accumulated profits and profit and loss accounts. (b) Dividends paid or payable out of profits earned during year. (c) Provisions for settlements under Savings Bank Amalgamation Agreements, \$2,062,290 and Commonwealth of Australia, \$2,403,736. Under the terms of the Savings Bank Amalgamation Agreements relating to the absorption of the State savings banks by the Commonwealth Bank, the profits of the Commonwealth Savings Bank in New South Wales and Queensland are equally divided between the Bank and the former controlling authorities in those States. (d) Excludes Savings Bank Division of the Rural and Industries Bank of Western Australia. (e) Includes Crédit Foncier Department. (f) Included in expenses. (g) Balancing dates as in 1965.

Savings banks—operative accounts

The following table shows the number of operative savings bank accounts in existence at the end of June 1964 and 1965. The figures relate to the number of accounts and not necessarily to the number of depositors.

SAVINGS BANKS: NUMBER OF OPERATIVE ACCOUNTS(a)
JUNE 1964 AND 1965
 ('000)

State or Territory	End of June(b)—	
	1964	1965
New South Wales	3,817	4,076
Victoria	3,418	3,630
Queensland	1,448	1,541
South Australia	1,182	1,254
Western Australia	736	786
Tasmania	363	379
Northern Territory	25	29
Australian Capital Territory	63	74
Australia	11,051	11,769

(a) Excludes school bank accounts and inoperative accounts, i.e. accounts of less than \$2 which have not been operated on for more than two years.
 (b) Private savings banks at last Wednesday in June, Launceston Bank for Savings at last Monday in June, other savings banks at end of June.

Savings banks—business transacted

The following table shows details of the business transacted in Australia by savings banks during the years 1963-64 and 1964-65.

SAVINGS BANKS: BUSINESS TRANSACTED IN AUSTRALIA, 1963-64 AND 1964-65
 (\$'000)

State or Territory	1963-64(a)				1964-65(a)			
	Deposits	Withdrawals (b)	Interest added (b)	Depositors' balances at end of year	Deposits	Withdrawals (b)	Interest added (b)	Depositors' balances at end of year
New South Wales	1,909,726	1,775,816	41,306	1,583,212	2,127,108	2,040,774	50,098	1,719,644
Victoria	1,860,832	1,716,234	36,308	1,478,968	2,184,056	2,087,078	44,462	1,620,408
Queensland	647,710	589,808	14,098	542,352	731,558	698,296	17,412	593,026
South Australia	579,634	532,654	12,668	475,804	671,412	643,280	15,332	519,268
Western Australia	306,142	281,322	6,134	239,766	345,734	331,250	7,404	261,654
Tasmania	125,316	116,932	3,530	124,770	142,382	135,516	4,100	135,736
Northern Territory	13,072	12,172	196	8,088	15,456	14,608	244	9,180
Australian Capital Territory	40,480	36,224	566	23,288	51,734	48,134	760	27,648
Australia	5,482,912	5,061,162	114,806	4,476,248	6,269,440	5,998,936	139,812	4,886,564

(a) See footnote (b) to table above. (b) Includes inter-branch transfers.

Savings banks—depositors' balances

The amount at credit of depositors' accounts and the average per head of population for each State and Territory at the end of June 1961 to 1965 are shown in the following table. Deposit stock and non-interest bearing cheque accounts at the State Savings Bank of Victoria and the Savings Bank of South Australia and fixed deposit accounts at the Trustee Savings

Banks in Tasmania are included in the depositors' balances shown below. Separate details are not available.

SAVINGS BANKS: DEPOSITORS' BALANCES IN AUSTRALIA
JUNE 1961 TO 1965

End of June(a)—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
AMOUNT (\$ million)									
1961 . . .	1,138	1,035	374	333	161	95	5	12	3,155
1962 . . .	1,250	1,142	412	362	181	102	6	15	3,470
1963 . . .	1,408	1,298	470	416	209	113	7	18	3,940
1964 . . .	1,583	1,479	542	476	240	125	8	23	4,476
1965 . . .	1,720	1,620	593	519	262	136	9	28	4,887

PER HEAD OF POPULATION
(\$)

1961 . . .	290.60	353.21	246.41	344.03	219.14	270.52	201.26	208.50	300.23
1962 . . .	314.34	381.65	266.88	365.86	239.97	287.05	222.03	223.18	324.12
1963 . . .	347.77	424.80	300.31	412.45	270.30	312.34	237.67	251.40	360.90
1964 . . .	384.58	472.37	341.31	461.22	303.53	342.25	250.27	289.63	401.98
1965 . . .	410.16	505.10	368.18	492.55	325.25	370.83	263.80	312.17	430.17

(a) Private savings banks at last Wednesday in June, Launceston Bank for Savings at last Monday in June, other savings banks at end of June.

Savings banks—cheque accounts

At most savings banks cheque accounts are available to non-profit organizations such as friendly, co-operative and charitable societies. Similar facilities are also available to other depositors at The State Savings Bank of Victoria and The Savings Bank of South Australia. Details of the transactions on these accounts during the year ended June 1965 (excluding The Savings Bank of South Australia), together with the number of operative accounts and the amount on deposit at the end of June 1965, were as follows: deposits during the year, \$1,301.9 million; withdrawals during the year, \$1,296.3 million; interest added during the year, \$2.5 million; amount on deposit at end of year, \$130.3 million; number of operative accounts at the end of year, 290,756. These figures are included in the statistics in previous paragraphs.

School savings banks

With the object of encouraging principles of thrift among children, agencies of the savings banks have been established at most of the schools throughout Australia. Particulars of operative accounts within Australia at the end of June 1961 to 1965 appear below.

SCHOOL SAVINGS BANKS: AUSTRALIA, JUNE 1961 TO 1965

End of June(a)—	Number of school agencies	Number of operative accounts	Deposits	Deposits per operative account
		'000	\$'000	\$
1961 . . .	9,225	1,166	17,317	14.86
1962 . . .	9,444	1,219	18,449	15.13
1963 . . .	9,551	1,255	19,331	15.41
1964 . . .	9,878	1,294	20,374	15.75
1965 . . .	9,544	1,364	22,055	16.16

(a) See footnote (a) to table above.

Savings banks—assets

The assets within Australia of all savings banks at the end of June 1964 and 1965 are shown in the following table. In the table on pages 708-9 assets are shown at balance-sheet date which are not in June for some banks. In addition, the table on pages 708-9 excludes statistics for the Savings Bank Division of the Rural and Industries Bank of Western Australia, which are included in the table below.

SAVINGS BANKS: ASSETS WITHIN AUSTRALIA(a), JUNE 1964 AND 1965
(\$ million)

	End of June(b)—	
	1964	1965
Coin, bullion and Australian notes	10.1	10.8
Deposits with Reserve Bank	430.2	430.3
Deposits in Australia with trading banks	123.1	117.5
Australian public securities—		
Commonwealth and States (including Treasury bills and Treasury notes)	1,994.3	2,066.1
Local government and semi-governmental authorities	955.6	1,092.3
Other securities	3.4	5.1
Loans to authorized dealers in the short-term money market	34.2	28.8
Cheques and bills of other banks and balances with and due from other banks	0.6	0.4
Loans, advances and bills discounted—		
Housing	997.8	1,185.2
Other	96.0	131.7
Bank premises, furniture and sites	57.2	63.0
Bills receivable and all other assets	15.4	19.0
Total	4,717.9	5,150.3

(a) Includes assets in Papua, New Guinea and Norfolk Island.
page 712.

(b) See footnote (b) to first table on

Savings banks—classification of depositors' balances

The classification of deposits published by savings banks does not permit a fully detailed analysis for Australia as a whole, but the classification at 30 June 1961 to 1965 of the combined deposits for The State Savings Bank of Victoria and The Savings Bank of South Australia is shown below.

STATE SAVINGS BANKS: CLASSIFICATION OF DEPOSITS
30 JUNE 1961 TO 1965
(Per cent)

30 June—	Up to \$2,000	Over \$2,000
1961	59.66	40.34
1962	57.31	42.69
1963	54.41	45.59
1964	51.89	48.11
1965	50.86	49.14

Savings banks—rates of interest on deposits

The following table shows the rates of interest allowed by savings banks at 30 June 1961 to 1965.

SAVINGS BANKS: INTEREST RATES ON DEPOSITS(a), 30 JUNE 1961 TO 1965
(Per cent per annum)

Size of account	30 June—				
	1961	1962	1963	1964	1965
Ordinary accounts(b)—					
Up to \$2,000	3½	3½	3	3½	3½
\$2,001 to \$3,000	3½	3½	3	3½	3½
\$3,001 to \$4,000	3½	3½	3	3½	3½
\$4,001 to \$5,000	3½	3½	3	3½	3½
\$5,001 to \$6,000 . . . . .	..	3½	3	3½	3½
Friendly and other society accounts—					
Up to \$4,000	3½	3½	3	3½	3½
\$4,001 to \$5,000	3½	3½	3	3½	3½
\$5,001 to \$6,000	1½	3½	3	3½	3½
\$6,001 and over	1½	2	1½	1½	2

(a) Rates allowed by the Commonwealth Savings Bank, private savings banks and The State Savings Bank of Victoria. Trustee savings banks and The Savings Bank of South Australia allow slightly higher rates of interest. (b) No interest is payable on amounts in excess of the maximum amount shown.

Finance companies

Information relating to the lending operations of finance companies in Australia is given in the following tables. A comprehensive account of the scope of these statistics and fuller details of the transactions of finance companies may be found in the annual bulletin *Finance Companies—July 1964 to October 1965* and in the monthly statements *Finance Companies: Australia*. For the purpose of these statistics finance companies are defined as companies which are engaged mainly in providing to the general public (businesses as well as persons in their private capacity) credit facilities of the following types: hire purchase and instalment credit for retail sales, wholesale hire purchase, other consumer and commercial loans, and factoring. The finance companies covered in these statistics, in so far as they provide instalment credit for retail sales, are also included in the statistics of 'Instalment Credit for Retail Sales' (see pages 735-9).

In general, companies which are engaged both in financing activities and other activities come within the scope of these statistics, provided that the major portion of their assets consists of financial assets of the types listed above and/or a major proportion of their income is derived from such assets. Companies are excluded if the major proportion of their balances outstanding consists of agreements written for the purpose of financing their own sales. Companies which are engaged mainly in financing, in any way, the operations of related companies ('related' as defined in the Companies Act) are also excluded from these statistics. Unincorporated finance businesses are excluded from these statistics. Also excluded are the following classes of financial and quasi-financial institutions: banks; life insurance companies; fire, marine and general insurance companies; short-term money market dealers; pastoral finance companies; investment companies; unit trusts; land trusts; mutual funds and management companies for the foregoing trusts and funds; pension and superannuation funds; building and friendly societies including credit unions.

Summary definitions of the categories into which finance agreements have been classified and of the items of data given in the tables are as follows.

Instalment credit for retail sales. This category is defined in the same way as in the Instalment Credit for Retail Sales section, page 735. It covers the operations of all types of instalment credit schemes undertaken by finance companies which relate primarily to the financing of retail sales of goods.

Wholesale hire purchase. This term is adopted in accordance with finance company usage although not all the transactions covered by this category are strictly hire purchase contracts. The category relates mainly to the financing of motor vehicle dealers' stocks held under bailment or floor plan schemes but includes also finance in respect of other trading stock.

Other consumer and commercial loans. This broad term is used to cover the following three categories.

Personal loans. Includes loans to persons other than loans classified to the categories instalment credit for retail sales, mortgage loans or commercial loans.

Mortgage loans. Includes all loans, for any purpose, to businesses or persons, which are secured over houses, home units (whether new or existing) and residential land.

Commercial loans. Includes all loans and advances to businesses not included elsewhere in these statistics. Loans on the security of existing finance agreements are also included in this item.

Factoring. The term 'factoring' is defined for the purpose of these statistics as comprising loans on the security of 'trade' debts (i.e. debts due to businesses for goods and services supplied to other businesses for use in their business or for resale), trade debts purchased, and inventory finance (i.e. finance for trading stocks, other than that included under wholesale hire purchase).

Amount financed. Amount financed is the actual amount of cash provided. It excludes interest, insurance, hiring, and other charges and initial deposits.

Balances outstanding. Balances outstanding represent the amounts owing on all finance agreements entered into prior to the end of the relevant period as shown in the books of the companies concerned. Accounting practice with respect to inclusion in balances outstanding of unmatured charges, interest and insurance differs as between finance companies and between types of finance agreements. Because of this, separate details of balances outstanding are given in the tables for those contracts for which balances outstanding are recorded including such charges, and for those contracts for which balances outstanding are recorded excluding such charges. It is not practicable to adjust either to a common basis. However, the total balances for all contracts are shown in the tables below to provide a broad overall measure. Movements in the 'all contracts' series may be affected by changes in the proportions of the two components of the series to the total.

Collections and other liquidations of balances. This item covers cash collections of capital repayments, hiring charges, interest and insurance, and also other liquidations such as bad debts written off, rebates for early payouts and proceeds of repossessions. For the reasons stated above, separate details of collections and other liquidations are given for contracts recorded including charges, etc., and contracts recorded excluding charges, etc.

Summary of transactions by finance businesses

The following table gives a summary of the amount financed, collections and other liquidations and balances outstanding in Australia for the year 1964-65.

FINANCE COMPANIES: SUMMARY, AUSTRALIA, 1964-65
(\$ million)

Period	Amount financed during period	Collections and other liquidations during period			Balances outstanding at end of period		
		Con- tracts in- cluding charges	Con- tracts ex- cluding charges	Total, all con- tracts	Con- tracts in- cluding charges	Con- tracts ex- cluding charges	Total, all con- tracts (a)
Year—							
1964-65	1,752.4	1,021.2	873.1	1,894.3	1,461.4	321.2	1,782.6
Month—							
1964—							
July	143.4	83.8	67.8	151.6	1,340.8	284.0	1,624.8
August	137.8	79.3	63.6	143.0	1,355.5	291.2	1,646.7
September	153.3	81.7	70.3	152.0	1,370.9	303.6	1,674.5
October	143.8	82.9	66.9	149.9	1,389.4	305.1	1,694.5
November	147.0	80.9	69.2	150.1	1,405.9	311.9	1,717.7
December	160.0	89.1	78.8	167.9	1,426.4	313.5	1,739.9
1965—							
January	131.2	76.8	64.5	141.3	1,435.3	318.9	1,754.4
February	127.8	83.4	64.3	147.7	1,438.7	320.5	1,759.2
March	157.8	99.7	75.7	175.4	1,445.3	326.6	1,771.9
April	149.1	84.8	78.6	163.4	1,453.4	330.8	1,784.2
May	152.2	84.8	83.3	168.1	1,462.6	330.6	1,793.3
June	148.9	93.9	90.1	184.0	1,461.4	321.2	1,782.6

(a) Amounts shown in this column are intended to provide a broad overall measurement of total balances outstanding. Movements in this series may be affected by changes in the proportions of the two components of the series to the total.

Amount financed, by type of agreement

The following table shows the separate amount financed, for each type of agreement, that is, instalment credit for retail sales, wholesale hire purchase, personal loans, mortgage loans, commercial loans and factoring, in Australia during the year 1964-65.

**FINANCE COMPANIES: AMOUNT FINANCED, BY TYPE OF AGREEMENT
AUSTRALIA, 1964-65
(\$ million)**

Period	Instalment credit for retail sales	Wholesale hire purchase	Other consumer and commercial loans			Factoring	Total
			Personal loans	Mortgage loans	Commercial loans		
Year—							
1964-65	639.3	482.8	67.1	212.4	257.8	93.0	1,752.4
Month—							
1964—							
July	51.5	43.9	5.8	20.7	14.3	7.3	143.4
August	52.0	41.9	5.7	16.0	14.7	7.5	137.8
September	55.3	40.9	5.4	17.8	25.9	8.0	153.3
October	56.7	40.2	5.7	18.4	13.9	8.9	143.8
November	54.6	41.9	5.8	18.4	17.4	8.9	147.0
December	63.2	41.2	6.3	19.8	20.9	8.6	160.0
1965—							
January	48.2	31.7	5.0	12.8	28.5	5.0	131.2
February	47.0	33.1	5.4	15.4	20.0	7.0	127.8
March	56.1	40.9	5.9	20.3	25.9	8.6	157.8
April	50.6	41.1	5.2	18.8	24.5	8.8	149.1
May	51.3	44.0	5.6	17.0	26.1	8.2	152.2
June	52.9	41.9	5.2	17.1	25.8	6.1	148.9

Collections and other liquidations, by type of agreement

The following table shows the collections and other liquidations by type of agreement, that is, instalment credit for retail sales, wholesale hire purchase, other consumer and commercial loans, and factoring, made by finance companies in Australia during the year 1964-65.

**FINANCE COMPANIES: COLLECTIONS AND OTHER LIQUIDATIONS OF
BALANCES, BY TYPE OF AGREEMENT, AUSTRALIA, 1964-65
(\$ million)**

Period	Contracts including charges				Contracts excluding charges				Total all contracts
	Instalment credit for retail sales	Other consumer and commercial loans	Factoring	Total	Wholesale hire purchase	Other consumer and commercial loans	Factoring	Total	
Year—									
1964-65	725.3	285.3	10.5	1,021.2	490.4	285.0	97.7	873.1	1,894.3
Month—									
1964—									
July	58.1	24.4	1.3	83.8	42.9	17.8	7.1	67.8	151.6
August	57.1	21.3	1.0	79.3	42.2	14.6	6.8	63.6	143.0
September	59.1	21.5	1.1	81.7	39.7	23.0	7.6	70.3	152.0
October	59.1	22.9	0.9	82.9	41.9	16.6	8.5	66.9	149.9
November	57.0	22.7	1.1	80.9	40.3	20.3	8.6	69.2	150.1
December	63.1	25.3	0.7	89.1	44.6	25.6	8.6	78.8	167.9
1965—									
January	56.4	19.8	0.7	76.8	36.7	19.9	7.9	64.5	141.3
February	60.6	22.2	0.6	83.4	37.9	18.7	7.8	64.3	147.7
March	71.0	28.1	0.7	99.7	41.8	25.8	8.1	75.7	175.4
April	59.9	23.9	1.0	84.8	39.0	30.2	9.3	78.6	163.4
May	61.0	23.0	0.8	84.8	41.8	32.8	8.7	83.3	168.1
June	63.1	30.2	0.7	93.9	41.6	39.8	8.7	90.1	184.0

Balances outstanding

The following tables show the total balances outstanding in Australia by type of agreement and by State at the end of each month during the year 1964-65.

**FINANCE COMPANIES: BALANCES OUTSTANDING, BY TYPE OF AGREEMENT
AUSTRALIA, 1964-65**

(\$ million)

At end of—	Contracts including charges				Contracts excluding charges				Total all contracts (a)
	Instalment credit for retail sales	Other consumer and commercial loans	Factor-ing	Total	Whole-sale hire purchase	Other consumer and commercial loans	Factor-ing	Total	
Year—									
1964-65	968.8	488.4	4.2	1,461.4	62.2	235.4	23.6	321.2	1,782.6
Month—									
1964—									
July	868.8	466.8	5.2	1,340.8	60.5	200.4	23.1	284.0	1,624.8
August	880.5	469.7	5.4	1,355.5	61.3	205.4	24.6	291.2	1,646.7
September	893.0	472.8	5.1	1,370.9	63.2	215.0	25.3	303.6	1,674.5
October	907.7	476.7	5.0	1,389.4	63.2	216.1	25.8	305.1	1,694.5
November	922.1	479.0	4.8	1,405.9	65.9	219.3	26.7	311.9	1,717.7
December	940.1	481.8	4.5	1,426.4	63.4	222.5	27.5	313.5	1,739.9
1965—									
January	947.1	483.7	4.5	1,435.3	58.8	234.9	25.4	318.9	1,754.4
February	947.3	487.0	4.4	1,438.7	56.5	239.0	25.0	320.5	1,759.2
March	949.3	491.7	4.4	1,445.3	56.4	244.6	25.6	326.6	1,771.9
April	955.8	493.5	4.1	1,453.4	59.0	245.4	26.3	330.8	1,784.2
May	961.7	496.7	4.2	1,462.6	61.6	243.7	25.3	330.6	1,793.3
June	968.8	488.4	4.2	1,461.4	62.2	235.4	23.6	321.2	1,782.6

(a) Amounts shown in this column are intended to provide a broad overall measure of total balances outstanding. Movements in this series may be affected by changes in the proportions of the two components of the series to the total.

FINANCE COMPANIES: BALANCES OUTSTANDING, STATES, 1964-65

(\$ million)

At end of—	N.S.W. (a)	Vic.	Qld	S.A. (b)	W.A.	Tas.	Aust.
Year—							
1964-65	755.9	413.7	249.2	215.9	111.6	36.2	1,782.6
Month—							
1964—							
July	704.5	385.4	213.4	188.9	98.3	34.4	1,624.8
August	713.7	390.9	217.7	191.3	98.9	34.2	1,646.7
September	726.7	396.9	221.3	195.0	99.8	34.7	1,674.5
October	729.8	403.0	226.1	199.0	101.7	35.0	1,694.5
November	737.3	410.0	230.5	201.5	103.5	35.0	1,717.7
December	744.7	413.1	236.2	205.1	105.2	35.5	1,739.9
1965—							
January	756.6	412.8	237.1	207.1	105.4	35.6	1,754.4
February	761.7	410.2	239.6	207.8	104.4	35.6	1,759.2
March	769.2	408.7	242.2	210.0	106.1	35.8	1,771.9
April	768.3	414.5	245.0	212.6	107.9	35.9	1,784.2
May	765.8	416.5	249.0	214.9	110.7	36.4	1,793.3
June	755.9	413.7	249.2	215.9	111.6	36.2	1,782.6

(a) Includes Australian Capital Territory. (b) Includes Northern Territory.

The information given above relates to business written or recorded by finance companies (or branches of finance companies) operating in each State, but does not necessarily indicate that the funds so provided are for use within that State. The extent to which funds may be raised in one State for use in another State is not known. However, agreements (particularly commercial loans) arranged with a finance company by a head office of an interstate business could be of this nature.

INSURANCE

Legislation

Section 51 of the Commonwealth Constitution confers the necessary powers on the Commonwealth Parliament to legislate with respect to 'insurance other than State insurance; also State insurance extending beyond the limits of the State concerned'. Commonwealth legislation includes the *Marine Insurance Act* 1909 defining the limits of marine insurance and regulating the terms of contracts, etc., the *Insurance Act* 1932-1960 requiring the lodgment of deposits by insurance companies, and the *Life Insurance Act* 1945-1965 generally regulating life insurance business in Australia. The *Marine Insurance Act* 1909 and the *Insurance Act* 1932-1960 have limited application, and, except for life insurance business, which is regulated by the *Life Insurance Act* 1945-1965, insurance business is conducted almost entirely under State laws.

Insurance Act 1932-1960

Companies, persons or associations of persons carrying on insurance business in Australia or in any Territory of Australia are required to lodge a deposit with the Commonwealth Treasurer. Money deposited is invested by the Treasurer in prescribed securities selected by the depositor, and all interest is paid to depositors. Deposits remain as security against liability to policy holders, and are available to satisfy judgments obtained in respect of policies. Deposits held by States on 1 February 1932 could, however, remain with the States subject to the conditions embodied in the laws of the States, and depositors to the extent of the value of these deposits were exempt from liability to make deposits under the Commonwealth Act.

The following are not regarded as insurance business under the Act: staff superannuation schemes; schemes of religious organizations solely for insurance of their property; friendly society, union and association schemes involving superannuation or insurance benefits to employees.

This Act does not apply to State insurance within the limits of the State concerned, and, under the *Life Insurance Act* 1945-1965, ceased to apply to life insurance business.

Life Insurance Act 1945-1965

The objects of this Act are: (a) to replace all State legislation on the subject of life insurance, except that relating to the life insurance operations of State Government insurance offices within the State concerned, and to provide uniform legislation for the whole of Australia; (b) to appoint an Insurance Commissioner to exercise active supervision of the activities of life insurance companies, with a view to securing the greatest possible protection for policy holders; (c) to set up adequate machinery for dealing with any company that fails to maintain a required minimum standard of solvency. The Act came into operation on 20 June 1946. A summary of the provisions of the Act is given in Year Book No. 37, pages 595-7.

Deposits under Insurance Acts

Deposits lodged under the Insurance Acts at 30 June 1965 totalled \$31.5 million, comprising \$4.0 million held by the Commonwealth in respect of life insurance, and \$27.4 million held by the Commonwealth and \$20,060 held by the State of New South Wales in respect of other forms of insurance. The deposits consisted of Commonwealth Government securities \$19.1 million, United Kingdom Government securities \$1.4 million, fixed deposits \$0.3 million, bank guarantees and undertakings \$7.9 million, corporation debentures and stock \$0.8 million, and titles and mortgages \$2.0 million.

Life insurance

Since 1947 returns lodged under the *Life Insurance Act* 1945-1965 have been used to compile life insurance statistics. Except where otherwise indicated, the figures in the succeeding paragraphs refer only to Australian business. Business in the Territories of Papua and New Guinea is, however, included in the Australian figures. The information shown has been compiled from returns of life insurance business submitted in the financial years which ended during the year stated.

Offices transacting business

The number of offices which transacted life insurance business in Australia during 1964 was 43, including 12 oversea companies. Of the 31 Australian offices, 6 are purely mutual, including one which transacts general business in respect of which share capital is used, 23 are public companies, and 2 are State Government institutions. Of the total, 30 transacted ordinary business only and the remainder both ordinary and industrial business. Where possible, ordinary, industrial and superannuation business have been kept separate in the following tables.

Australian business—policies in existence

In the following tables details are given of policies on the registers in each State and the Australian Capital Territory and for Australia.

**LIFE INSURANCE: POLICIES EXISTING IN AUSTRALIA, STATES
AND TERRITORIES, 1964**

State or Territory(a)	Insurance and endowment policies				Annuity policies		
	Number of policies	Sum insured (\$'000)	Bonus additions (\$'000)	Annual premiums (\$'000)	Number of policies	Annuities per annum (\$'000)	Annual premiums (\$'000)

ORDINARY BUSINESS

New South Wales . . .	1,260,959	2,828,381	290,177	79,403	929	369	4
Victoria . . .	1,032,722	2,648,718	254,558	70,432	919	350	8
Queensland(b) . . .	692,334	1,514,912	157,097	38,319	225	68	1
South Australia(c) . . .	430,229	949,009	88,805	26,340	200	53	1
Western Australia . . .	293,020	655,303	64,360	18,379	137	42	2
Tasmania . . .	132,459	301,906	30,114	7,965	85	33	2
Australian Capital Territory . . .	79,912	486,322	28,451	10,610	93	88	..
Australia(b) . . .	3,921,635	9,384,551	913,562	251,448	2,588	1,003	18

INDUSTRIAL BUSINESS

New South Wales . . .	1,063,308	317,899	19,271	13,649	..	..	..
Victoria . . .	863,683	250,225	15,692	10,601	..	..	..
Queensland(b) . . .	363,475	102,038	5,983	4,437	..	..	..
South Australia(c) . . .	299,984	78,046	4,719	3,381	..	..	..
Western Australia . . .	177,755	50,595	3,041	2,163	..	..	..
Tasmania . . .	65,533	18,015	1,130	764	..	..	..
Australian Capital Territory . . .	17,239	6,342	377	273	..	..	..
Australia(b) . . .	2,850,977	823,158	50,213	35,268	..	..	..

SUPERANNUATION BUSINESS

New South Wales . . .	270,792	458,141	40,075	15,166	163	3,092	849
Victoria . . .	118,939	1,063,808	52,057	23,553	458	7,113	2,715
Queensland(b) . . .	64,077	185,509	14,499	6,461	19	119	25
South Australia(c) . . .	42,658	161,061	14,666	5,928	50	115	20
Western Australia . . .	35,105	119,247	8,346	3,756	27	98	16
Tasmania . . .	15,470	76,287	6,983	2,433	35	53	11
Australian Capital Territory . . .	70,143	1,032,002	28,511	16,470	228	16,003	2,804
Australia(b) . . .	617,184	3,096,055	165,137	73,767	980	26,593	6,440

(a) Location of register of policies. (b) Includes Papua and New Guinea. (c) Includes Northern Territory.

LIFE INSURANCE: POLICIES EXISTING IN AUSTRALIA, 1960 TO 1964

At end of year—	Insurance and endowment policies				Annuity policies	
	Number of policies	Sum insured (\$ million)	Average sum insured per policy (\$'000)	Annual premiums (\$ million)	Number of policies	Annuities per annum (\$ million)

ORDINARY BUSINESS

1960(a)	4,110,289	7,690.3	1.9	224.6	4,354	21.1
1961	3,580,643	6,746.4	1.9	195.2	2,754	0.9
1962	3,690,996	7,543.5	2.0	212.0	2,606	0.9
1963	3,794,150	8,377.0	2.2	229.8	2,618	1.0
1964	3,921,635	9,384.6	2.4	251.4	2,588	1.0

INDUSTRIAL BUSINESS

1960	3,340,003	685.9	0.2	31.7	..	..
1961	3,198,822	706.8	0.2	33.1	..	..
1962	3,075,967	743.5	0.2	33.1	..	..
1963	2,952,808	777.1	0.3	34.0	..	..
1964	2,850,977	823.2	0.3	35.3	..	..

SUPERANNUATION BUSINESS

1961	620,848	1,997.1	3.2	51.2	1,582	22.2
1962	599,514	2,310.2	3.9	58.0	1,689	24.1
1963	607,297	2,632.8	4.3	65.1	1,757	25.3
1964	617,184	3,096.1	5.0	73.8	980	26.6

(a) Includes particulars of superannuation business, available separately commencing 1961.

New policies issued in Australia

In the following tables details are given of new policies issued in each State and the Australian Capital Territory and Australia for each class of business.

LIFE INSURANCE: NEW POLICIES ISSUED IN AUSTRALIA
STATES AND TERRITORIES, 1964

State or Territory(a)	Insurance and endowment policies				Annuity policies			
	Number of policies	Sum insured (\$'000)	Premiums		Number of policies	Annuities per annum (\$'000)	Premiums	
			Single (\$'000)	Annual (\$'000)			Single (\$'000)	Annual (\$'000)

ORDINARY BUSINESS

New South Wales	112,890	445,779	298	10,828	43	34	295	..
Victoria	90,853	434,089	277	9,292	43	28	221	..
Queensland(b)	56,708	236,963	74	5,243	7	4	23	..
South Australia(c)	43,413	159,119	84	3,870	6	5	34	..
Western Australia	29,783	118,853	42	2,745	6	2	15	..
Tasmania	12,821	47,412	11	1,131	6	4	8	3
Australian Capital Territory	15,650	101,947	49	2,229	4	2	19	..
Australia(b)	362,118	1,544,162	835	35,338	115	79	615	3

(a) Location of register of policies. (b) Includes Papua and New Guinea. (c) Includes Northern Territory.

LIFE INSURANCE: NEW POLICIES ISSUED IN AUSTRALIA, 1964—*continued*

State or Territory(a)	Insurance and endowment policies				Annuity policies			
	Number of policies	Sum insured	Premiums		Number of policies	Annuities per annum	Premiums	
			Single	Annual			Single	Annual
		(\$'000)	(\$'000)	(\$'000)		(\$'000)	(\$'000)	(\$'000)

INDUSTRIAL BUSINESS

New South Wales	49,299	46,249	..	1,813	..	..	..	..
Victoria	34,713	32,811	..	1,245	..	..	..	..
Queensland(b)	17,362	14,381	..	587	..	..	..	..
South Australia(c)	13,192	10,777	..	436	..	..	..	..
Western Australia	8,375	7,195	..	286	..	..	..	..
Tasmania	3,309	2,796	..	112	..	..	..	..
Australian Capital Territory	914	961	..	37	..	..	..	..
Australia(b)	127,164	115,170	..	4,516	..	..	..	..

SUPERANNUATION BUSINESS

New South Wales	23,020	74,671	147	2,220	3	396	17	163
Victoria	18,045	253,090	2,506	4,975	188	1,239	1,208	454
Queensland(b)	10,496	50,586	117	1,449	..	19	..	4
South Australia(c)	5,260	34,908	77	1,196	1	22	45	4
Western Australia	5,012	25,593	69	792	..	12	2	3
Tasmania	2,537	19,811	109	557	2	18	..	3
Australian Capital Territory	13,983	305,379	2,366	4,759	22	2,870	67	384
Australia(b)	78,353	764,038	5,391	15,948	216	4,576	1,339	1,015

(a) Location of register of policies.

(b) Includes Papua and New Guinea.

(c) Includes Northern Territory.

LIFE INSURANCE: NEW POLICIES ISSUED IN AUSTRALIA, 1960 TO 1964

Year	Insurance and endowment policies				Annuity policies			
	Number of policies	Sum insured	Premiums		Number of policies	Annuities per annum	Premiums	
			Single	Annual			Single	Annual
		(\$'000)	(\$'000)	(\$'000)		(\$'000)	(\$'000)	(\$'000)

ORDINARY BUSINESS

1960(a)	454,018	1,604,522	1,806	38,622	(b) -218	4,494	1,216	1,320
1961	354,671	1,206,920	722	29,316	201	106	678	6
1962	334,072	1,286,156	456	29,980	95	62	502	..
1963	343,450	1,364,384	1,822	31,606	119	96	698	2
1964	362,118	1,544,162	835	35,338	115	79	615	3

INDUSTRIAL BUSINESS

1960	187,150	78,788	..	3,554	..	..	..	..
1961	176,389	88,212	..	3,812	..	..	..	..
1962	156,316	104,508	..	4,304	..	..	..	..
1963	130,681	105,970	..	4,232	..	..	..	..
1964	127,164	115,170	..	4,516	..	..	..	..

SUPERANNUATION BUSINESS

1961	79,503	451,784	5,714	10,270	52	3,938	1,730	982
1962	75,459	485,840	1,844	11,088	161	3,900	1,208	1,016
1963	79,299	559,880	3,216	12,510	155	4,260	1,080	1,098
1964	78,353	764,038	5,391	15,948	216	4,576	1,339	1,015

(a) Includes particulars of superannuation business, available separately commencing 1961.

(b) Net decrease due to cancellation of individual policies and issue of blanket policies.

Policies discontinued or reduced in Australia

In the following tables details are given of ordinary, industrial and superannuation life insurance policies discontinued or reduced in each State and the Australian Capital Territory and Australia.

LIFE INSURANCE: POLICIES DISCONTINUED OR REDUCED IN AUSTRALIA STATES AND TERRITORIES, 1964(a)

State or Territory(b)	Insurance and endowment policies			Annuity policies		
	Number of policies	Sum insured (\$'000)	Annual premiums (\$'000)	Number of policies	Annuities per annum (\$'000)	Annual premiums (\$'000)

ORDINARY BUSINESS

New South Wales . . .	83,853	201,459	5,266	102	29	-1
Victoria	60,741	151,452	3,761	8	-6	..
Queensland(c)	36,357	72,601	1,828	9	1	..
South Australia(d) . .	25,532	55,432	1,490	9	4	..
Western Australia . . .	20,851	39,138	1,040	15	3	..
Tasmania	9,591	21,518	552	4	1	..
Australian Capital Territory	-2,292	-5,027	-259	-3	-5	..
Australia(c) . . .	234,633	536,573	13,680	144	27	-1

INDUSTRIAL BUSINESS

New South Wales . . .	88,213	28,898	1,333	..	..	..
Victoria	68,929	19,349	895	..	..	..
Queensland(c)	24,748	7,717	358	..	..	..
South Australia(d) . .	25,973	6,214	295	..	..	..
Western Australia . . .	14,243	4,583	213	..	..	..
Tasmania	6,565	2,020	90	..	..	..
Australian Capital Territory	324	292	14	..	..	..
Australia(c) . . .	228,995	69,073	3,198	..	..	..

SUPERANNUATION BUSINESS

New South Wales . . .	26,499	56,993	1,960	198	419	226
Victoria	20,070	113,318	2,376	672	761	254
Queensland(c)	7,591	18,891	635	3	6	2
South Australia(d) . .	5,051	11,433	466	1	25	5
Western Australia . . .	3,605	9,919	302	-1	-1	4
Tasmania	3,695	10,662	303	..	2	..
Australian Capital Territory	1,908	79,518	1,254	121	2,099	406
Australia(c) . . .	68,419	300,734	7,296	994	3,311	897

(a) Includes matured, surrendered, forfeited, transfers to other State registers, conversions to other classes of business, etc. (b) Location of register of policies. (c) Includes Papua and New Guinea. (d) Includes Northern Territory.

Minus sign (-) denotes an increase in existing business in the registers concerned due to an excess of transfers from other States, or of conversions from other classes of business over discontinuances in those registers.

**LIFE INSURANCE: POLICIES DISCONTINUED OR REDUCED
IN AUSTRALIA(a), 1960 TO 1964**

Year	Insurance and endowment policies			Annuity policies		
	Number of policies	Sum insured (\$'000)	Annual premiums (\$'000)	Number of policies	Annuities per annum (\$'000)	Annual premiums (\$'000)

ORDINARY BUSINESS

1960(b)	.	.	.	287,031	485,600	14,056	1,267	2,962	972
1961	.	.	.	234,698	480,378	13,918	480	2,012	536
1962	.	.	.	223,719	489,028	13,236	243	88	6
1963	.	.	.	240,296	530,906	13,802	107	42	10
1964	.	.	.	234,633	536,573	13,680	144	27	-1

INDUSTRIAL BUSINESS

1960	.	.	.	290,315	57,938	2,964	..	..	..
1961	.	.	.	317,570	67,350	3,352	..	..	..
1962	.	.	.	279,171	67,818	3,290	..	..	..
1963	.	.	.	253,840	72,390	3,408	..	..	..
1964	.	.	.	228,995	69,073	3,198	..	..	..

SUPERANNUATION BUSINESS

1961	.	.	.	108,274	125,244	3,818	(c)-209	1,906	534
1962	.	.	.	96,793	172,682	4,212	54	2,014	1,042
1963	.	.	.	71,516	237,356	5,440	87	2,986	852
1964	.	.	.	68,419	300,734	7,296	994	3,311	897

(a) See footnote (a) to preceding table. (b) Includes particulars of superannuation business, available separately commencing 1961. (c) Negative amount denotes excess of conversions from other classes of business over discontinuances.

**LIFE INSURANCE POLICIES(a) DISCONTINUED OR REDUCED IN AUSTRALIA
BY CAUSE OF DISCONTINUANCE OR REDUCTION(b), 1960 TO 1964**

Year	Death or maturity	Surrender	Forfeiture	Other	Total
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ORDINARY BUSINESS

NUMBER OF POLICIES

1960(c)	.	.	.	70,539	122,201	58,767	35,524	287,031
1961	.	.	.	64,123	83,834	69,038	17,703	234,698
1962	.	.	.	68,027	81,132	71,538	3,022	223,719
1963	.	.	.	71,274	90,858	71,070	7,094	240,296
1964	.	.	.	76,288	91,291	65,390	1,664	234,633

For footnotes see next page.

LIFE INSURANCE POLICIES(a) DISCONTINUED OR REDUCED IN AUSTRALIA, BY CAUSE OF DISCONTINUANCE OR REDUCTION(b), 1960 TO 1964—continued

Year	Death or maturity	Surrender	Forfeiture	Other	Total
ORDINARY BUSINESS—continued					
SUM INSURED (\$'000)					
1960(c) . . .	51,978	198,332	155,578	79,712	485,600
1961 . . .	46,568	138,786	205,520	89,504	480,378
1962 . . .	51,706	144,680	216,688	75,954	489,028
1963 . . .	56,128	185,152	229,140	60,486	530,906
1964 . . .	63,938	200,775	228,508	43,352	536,573

INDUSTRIAL BUSINESS

NUMBER OF POLICIES

1960 . . .	172,026	71,178	47,041	70	290,315
1961 . . .	192,833	77,143	47,547	47	317,570
1962 . . .	161,387	75,028	41,205	1,551	279,171
1963 . . .	139,268	74,481	38,930	1,161	253,840
1964 . . .	131,755	65,017	31,531	692	228,995

SUM INSURED (\$'000)

1960 . . .	17,992	21,122	18,726	98	57,938
1961 . . .	21,186	24,062	22,080	22	67,350
1962 . . .	18,206	24,452	24,870	290	67,818
1963 . . .	16,472	25,914	29,844	160	72,390
1964 . . .	16,507	23,960	28,454	152	69,073

SUPERANNUATION BUSINESS

NUMBER OF POLICIES

1961 . . .	9,419	68,415	587	29,853	108,274
1962 . . .	9,517	32,848	972	53,456	96,793
1963 . . .	9,624	33,544	3,773	24,575	71,516
1964 . . .	10,241	34,949	1,546	21,683	68,419

SUM INSURED (\$'000)

1961 . . .	11,644	136,116	5,628	-28,144	125,244
1962 . . .	13,166	131,658	6,374	21,484	172,682
1963 . . .	14,718	138,134	13,892	70,612	237,356
1964 . . .	17,258	173,784	11,804	97,888	300,734

(a) Excludes annuities. (b) See footnote (a) on page 723. (c) Includes particulars of superannuation business, available separately commencing 1961.

Minus sign (-) denotes an increase in existing business due to an excess of transfers from overseas registers to Australian registers, or of conversions from other classes of business over discontinuances.

Australian revenue from premiums

Details of revenue from premiums in respect of all offices doing business in Australia are shown in the following tables for each State and the Australian Capital Territory for the year 1964 and for Australia for the years 1960 to 1964.

LIFE INSURANCE: AUSTRALIAN REVENUE FROM PREMIUMS, STATES AND TERRITORIES, 1964

(\$'000)

State or Territory(a)	Insurance and endowment premiums		Consideration for annuities		Total
	Single premiums	Other premiums	Single premiums	Other premiums	

ORDINARY BUSINESS

New South Wales	315	78,218	301	10	78,844
Victoria	368	69,803	222	4	70,397
Queensland(b)	71	37,814	23	..	37,908
South Australia(c)	85	26,162	34	1	26,282
Western Australia	42	18,167	15	7	18,231
Tasmania	12	7,840	9	2	7,863
Australian Capital Territory	44	9,885	18	1	9,948
Australia(b)	937	247,889	622	25	249,473

INDUSTRIAL BUSINESS

New South Wales . . . . .	..	13,139	..	..	13,139
Victoria . . . . .	..	10,324	..	..	10,324
Queensland(b) . . . . .	..	4,234	..	..	4,234
South Australia(c) . . . . .	..	3,264	..	..	3,264
Western Australia . . . . .	..	2,077	..	..	2,077
Tasmania . . . . .	..	734	..	..	734
Australian Capital Territory . . . . .	..	255	..	..	255
Australia(b) . . . . .	..	34,027	..	..	34,027

SUPER ANNUATION BUSINESS

New South Wales	386	16,074	34	961	17,455
Victoria	2,509	25,614	1,207	2,732	32,062
Queensland(b)	117	5,910	..	26	6,053
South Australia(c)	77	5,826	49	16	5,968
Western Australia	69	3,908	2	46	4,025
Tasmania	109	2,324	..	9	2,442
Australian Capital Territory	2,131	23,770	67	3,366	29,334
Australia(b)	5,398	83,426	1,359	7,156	97,339

(a) Location of register of policies. Territory.

(b) Includes Papua and New Guinea.

(c) Includes Northern

LIFE INSURANCE: AUSTRALIAN REVENUE FROM PREMIUMS, 1960 TO 1964
(\$'000)

Year	Ordinary business(a)		Industrial business	Superannuation business		Total all business combined
	Insurance and endowment premiums	Con-sideration for annuities		Insurance and endowment premiums	Con-sideration for annuities	
1960 . . .	227,008	8,266	30,896	(b)		266,170
1961 . . .	258,368	9,128	31,364			298,860
1962 . . .	209,472	524	32,284	67,290	8,266	317,836
1963 . . .	228,978	738	32,860	77,108	8,526	348,210
1964 . . .	248,826	647	34,027	88,824	8,515	380,839

(a) Prior to 1962, includes superannuation business.

(b) Included with ordinary business.

Claims, etc., paid in Australia

Details of the claims, etc., paid on policies in each State and the Australian Capital Territory during the year 1964 and in Australia during the years 1960 to 1964 are shown in the following tables.

LIFE INSURANCE: PAYMENTS TO POLICY-HOLDERS IN AUSTRALIA, STATES AND TERRITORIES, 1964
(\$'000)

State or Territory(a)	Claims		Sur-renders	Annuities	Cash bonuses	Total
	Death or disability	Maturity				

ORDINARY BUSINESS

New South Wales . . .	14,308	14,864	10,418	329	154	40,073
Victoria . . .	11,505	12,166	7,723	288	165	31,847
Queensland(b) . . .	6,299	5,877	4,156	61	59	16,452
South Australia(c) . . .	3,742	4,156	2,949	57	52	10,956
Western Australia . . .	2,491	2,812	1,997	35	39	7,374
Tasmania . . .	1,457	966	1,083	27	24	3,557
Australian Capital Territory .	1,735	396	595	68	14	2,808
Australia(b) . . .	41,537	41,237	28,921	865	507	113,067

INDUSTRIAL BUSINESS

New South Wales . . .	982	6,242	2,082	..	..	9,306
Victoria . . .	720	5,932	1,389	..	..	8,041
Queensland(b) . . .	332	1,799	637	..	..	2,768
South Australia(c) . . .	225	1,967	495	..	..	2,687
Western Australia . . .	159	1,013	365	..	..	1,537
Tasmania . . .	43	471	141	..	..	655
Australian Capital Territory .	17	67	37	..	..	121
Australia(b) . . .	2,478	17,491	5,146	..	..	25,115

(a) Location of register of policies. (b) Includes Papua and New Guinea. (c) Includes Northern Territory.

**LIFE INSURANCE: PAYMENTS TO POLICY-HOLDERS IN AUSTRALIA, STATES
AND TERRITORIES, 1964—continued**
(\$'000)

State or Territory(a)	Claims		Surrenders	Annuities	Cash bonuses	Total
	Death or disability	Maturity				

SUPERANNUATION BUSINESS

New South Wales . . .	2,167	1,900	3,555	294	49	7,965
Victoria	3,626	3,486	6,290	463	730	14,595
Queensland(b) . . .	670	780	1,321	7	5	2,783
South Australia(c) . .	666	980	699	12	..	2,357
Western Australia . .	252	452	556	13	..	1,273
Tasmania	206	257	414	7	..	884
Australian Capital Territory	3,103	1,567	7,697	485	118	12,970
Australia(b) . . .	10,690	9,422	20,532	1,281	902	42,827

(a) Location of register of policies. (b) Includes Papua and New Guinea. (c) Includes Northern Territory.

LIFE INSURANCE: PAYMENTS TO POLICY-HOLDERS IN AUSTRALIA, 1960 TO 1964
(\$'000)

Year	Claims	Surrenders	Annuities	Cash bonuses	Total
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ORDINARY BUSINESS(a)

1960	65,032	48,184	1,276	560	115,052
1961	72,892	42,034	1,396	1,178	117,500
1962	66,302	24,206	758	390	91,656
1963	72,692	27,872	786	602	101,952
1964	82,774	28,921	865	507	113,067

INDUSTRIAL BUSINESS

1960	20,044	3,928	..	..	23,972
1961	23,798	4,690	..	..	28,488
1962	20,860	5,030	..	..	25,890
1963	19,236	5,574	..	..	24,810
1964	19,969	5,146	..	..	25,115

SUPERANNUATION BUSINESS(b)

1962	15,000	14,188	894	488	30,570
1963	16,450	14,508	1,208	756	32,922
1964	20,112	20,532	1,281	902	42,827

(a) Prior to 1962, includes superannuation business. (b) See footnote (a).

Total revenue and expenditure

The following tables show particulars of the total life insurance revenue derived, and of the total expenditure by life insurance offices both within and beyond Australia during each of the years 1960 to 1964.

**ORDINARY, INDUSTRIAL AND SUPERANNUATION LIFE INSURANCE: TOTAL
REVENUE, 1960 TO 1964**

(\$'000)

Year	Insurance and endowment premiums	Con-sideration for annuities granted	Net interest, dividends and rents	All other revenue	Total revenue	
					Inside Australia	Outside Australia

ORDINARY BUSINESS(a)

1960	.	.	.	305,596	12,812	112,626	11,672	323,896	118,810
1961	.	.	.	343,580	16,904	129,124	37,832	395,250	132,190
1962	.	.	.	296,582	20,600	125,272	10,582	303,548	149,488
1963	.	.	.	323,118	7,126	140,570	15,470	337,968	148,316
1964	.	.	.	350,532	10,758	155,022	14,648	367,711	163,249

INDUSTRIAL BUSINESS

1960	.	.	.	35,794	..	14,380	892	43,968	7,098
1961	.	.	.	36,206	..	15,296	640	44,982	7,162
1962	.	.	.	37,196	..	16,232	944	47,078	7,294
1963	.	.	.	37,786	..	17,258	1,776	48,334	8,486
1964	.	.	.	38,787	..	17,703	257	49,573	7,174

SUPERANNUATION BUSINESS(b)

1962	.	.	.	73,486	9,242	26,408	6,378	105,686	9,828
1963	.	.	.	83,836	9,806	31,080	4,576	118,614	10,684
1964	.	.	.	96,326	9,468	36,249	2,224	132,697	11,570

(a) Prior to 1962, includes superannuation business.

(b) See footnote (a).

**ORDINARY, INDUSTRIAL AND SUPERANNUATION LIFE INSURANCE
TOTAL EXPENDITURE, 1960 TO 1964
(\$'000)**

Year	Claims and annuities paid	Surrenders	Cash bonuses paid to policy-holders	Commission	Salaries and directors' fees	All expenditure	Total expenditure	
							Inside Australia	Outside Australia

ORDINARY BUSINESS(a)

1960	.	.	100,756	57,750	978	26,256	18,670	25,262	166,696	62,976
1961	.	.	112,632	52,948	1,642	28,338	20,844	29,512	176,780	69,136
1962	.	.	107,712	34,780	868	28,618	19,156	27,744	146,904	71,974
1963	.	.	119,830	38,872	1,002	30,920	20,944	29,684	160,960	80,292
1964	.	.	131,522	40,998	1,197	34,160	23,132	25,988	172,341	84,656

INDUSTRIAL BUSINESS

1960	.	.	24,300	4,388	..	5,158	4,418	3,846	35,668	6,442
1961	.	.	28,922	5,186	..	5,370	4,492	3,814	40,272	7,512
1962	.	.	25,688	5,618	..	5,504	4,618	3,650	37,834	7,244
1963	.	.	23,716	6,174	..	5,358	4,674	4,848	37,882	6,888
1964	.	.	24,006	5,742	..	5,610	4,769	3,430	37,172	6,385

SUPERANNUATION BUSINESS(b)

1962	.	.	17,436	15,544	528	3,398	3,710	7,154	43,486	4,284
1963	.	.	19,498	16,042	852	3,980	4,134	7,690	47,220	4,976
1964	.	.	23,525	22,951	973	4,626	4,723	10,847	61,111	6,534

(a) Prior to 1962, includes superannuation business.

(b) See footnote (a).

Liabilities and assets

The liabilities of the Australian offices consist mainly of their insurance funds, but in the case of public companies there is a further liability on account of the shareholders' capital. The assets consist chiefly of government and municipal securities, mortgages, loans on policies, landed and house property, etc. Loans on personal security are granted by very few of the Australian offices. Separate details of liabilities in respect of Australian business are not available.

Total liabilities and assets. In the two tables which follow the details of liabilities and assets relate to all business (Australian and overseas) of Australian companies, the life insurance business of the two State Government offices, and the Australian business only of the twelve overseas companies operating in Australia. For various reasons several offices do not attempt the dissection of liabilities and assets according to type of business, and, therefore, the figures in the following tables relate to all types of business combined.

LIFE INSURANCE: TOTAL LIABILITIES, 1964
(\$ million)

	Life insurance business	Other classes of business	Total liabilities
Shareholders' capital—			
Authorized . . . . .	..	57.6	57.6
Less unissued . . . . .	..	32.4	32.4
Subscribed capital . . . . .	..	25.2	25.2
Paid-up—			
In money . . . . .	..	19.6	19.6
Otherwise than in money . . . . .	..	4.6	4.6
Total, paid-up capital . . . . .	..	24.2	24.2
Life insurance statutory funds—			
Ordinary business	2,997.5	..	2,997.5
Industrial business	338.7	..	338.7
Superannuation business	653.1	..	653.1
Total, statutory funds	3,989.3	..	3,989.3
Funds in respect of other classes of business . . . . .	..	16.3	16.3
General reserves	50.0	13.1	63.1
Profit and loss account balance . . . . .	..	1.2	1.2
Total, shareholders' capital, insurance funds and reserves	4,039.3	54.8	4,094.1
Other liabilities—			
Deposits	35.0	16.1	51.1
Staff provident and superannuation funds	1.7	0.8	2.5
Claims admitted or intimated but not paid	41.6	10.2	51.8
Premiums paid in advance and in suspense	3.2	..	3.2
Sundry creditors	21.2	2.4	23.6
Bank overdraft	24.2	0.9	25.1
Reserves and provisions for taxation	28.3	5.3	33.6
All other liabilities	2.0	5.3	7.3
Grand total	4,196.5	95.8	4,292.3

**ORDINARY, INDUSTRIAL AND SUPERANNUATION LIFE INSURANCE
TOTAL ASSETS, 1964**
(\$ million)

—	Life insurance business	Other classes of business	Total	Amount of assets held in Australia		
				Life insurance business	Other classes of business	Total
Fixed assets—						
Freehold and leasehold property, office premises	334.7	6.0	340.7	249.4	6.0	255.4
Furniture, etc.	6.3	1.5	7.8	4.8	1.5	6.3
<i>Total, fixed assets</i>	<i>341.0</i>	<i>7.5</i>	<i>348.5</i>	<i>254.2</i>	<i>7.5</i>	<i>261.7</i>
Loans—						
On mortgage	1,185.8	8.7	1,194.5	840.0	8.7	848.7
On policies of the company	146.7	..	146.7	113.5	..	113.5
Other loans	42.6	2.9	45.5	40.8	2.9	43.7
<i>Total, loans</i>	<i>1,375.1</i>	<i>11.6</i>	<i>1,386.7</i>	<i>994.3</i>	<i>11.6</i>	<i>1,005.9</i>
Investments—						
Government securities—						
Australia	795.4	6.6	802.0	761.8	6.6	768.4
Other	243.2	1.7	244.9	0.3	0.1	0.4
Securities of local and semi-governmental bodies	377.1	3.4	380.5	271.4	3.1	274.5
Other investments	943.2	53.5	996.7	751.2	53.0	804.2
<i>Total, investments</i>	<i>2,358.9</i>	<i>65.2</i>	<i>2,424.1</i>	<i>1,784.7</i>	<i>62.8</i>	<i>1,847.5</i>
Cash on deposit, current account and in hand	6.3	2.8	9.1	4.0	2.6	6.6
Other assets(a)	115.2	8.7	123.9	87.6	8.5	96.1
Grand total	4,196.5	95.8	4,292.3	3,124.8	93.0	3,217.8

(a) Includes advances of premiums.

Assets held in Australia. Details of assets held in Australia for the years 1960 to 1964 are set out in the following table.

**ORDINARY, INDUSTRIAL AND SUPERANNUATION LIFE INSURANCE(a)
ASSETS HELD IN AUSTRALIA, 1960 TO 1964**
(\$ million)

—	1960	1961	1962	1963	1964
Freehold and leasehold property	117.7	144.7	170.8	215.5	255.4
Government and municipal securities	713.7	777.1	870.0	953.2	1,043.3
Other investments	401.7	468.8	534.1	671.6	804.2
Loans on mortgage	706.1	749.9	784.1	815.3	848.7
Loans on companies' policies	75.5	89.9	97.6	101.5	113.5
Other loans	53.2	52.3	49.4	46.6	43.7
All other assets	67.9	76.9	90.8	104.5	109.0
Total	2,135.7	2,359.7	2,596.8	2,908.2	3,217.8

(a) Life insurance and other classes of business.

Loans

In the following table details are given of new loans paid over by life insurance companies during each of the years ended 31 December 1961 to 1965. The information has been compiled from monthly returns furnished by each company. New loans paid over by the Government Insurance Office of New South Wales and the Queensland State Government Insurance Office are not included. Advances of premiums are also excluded.

LIFE INSURANCE COMPANIES: NEW LOANS PAID OVER, BY CLASS OF SECURITY AND STATE OR TERRITORY, 1961 TO 1965

(\$'000)

	1961	1962	1963	1964	1965
Class of security—					
Mortgage of real estate	102,222	94,892	119,746	138,762	159,991
Companies' policies	25,592	21,444	23,494	24,364	30,772
Other	4,380	2,048	1,924	3,248	3,436
State or Territory(a)—					
New South Wales	53,670	55,628	65,840	67,104	84,268
Victoria	43,298	31,114	43,780	59,022	60,914
Queensland(b)	11,378	10,454	11,474	13,890	17,018
South Australia(c)	10,358	9,606	11,112	9,962	12,313
Western Australia	7,722	5,712	8,150	10,544	13,442
Tasmania	4,944	3,672	3,452	4,446	3,965
Australian Capital Territory	824	2,198	1,356	1,406	2,280
Total(b)	132,194	118,384	145,164	166,374	194,201

(a) State or Territory of location of mortgage, registration of policy, or residence of borrower. (b) Includes Papua and New Guinea. (c) Includes the Northern Territory.

Fire, marine and general insurance

The following statistics, which are in respect of the Australian business of companies operating in Australia and State Government insurance offices, conform to the following definitions and should be interpreted in accordance therewith.

- Premiums represent the full amount receivable in respect of policies issued and renewed in the year, less returns, rebates and bonuses paid or credited to policy-holders during the year. They are not adjusted to provide for premiums unearned at the end of the year and consequently the amounts differ from 'earned premium income' appropriate to the year. When business is increasing, as in recent years, premiums receivable (as shown in the statistics) are greater than 'earned premium income' appropriate to the year. The converse applies when business is declining.
- Claims or losses include provision for outstanding claims and represent claims or losses incurred in the year. Salvage and other amounts recoverable have been deducted.
- Contributions to fire brigades, commission and agents' charges, and expenses of management represent mainly charges paid during the year.
- Taxation represents mainly payments made during the year, and includes income tax, pay-roll tax, licence fees, stamp duty (where paid by the company), etc. Income tax paid during the year is based on the income of earlier years.

The figures relate to selected items of statistics and are not construable as 'Profit and Loss' statements or 'Revenue Accounts'.

In cases where the business is underwritten in one State and the risk is situated in another, the business is included in the State in which the policy was issued.

During 1964-65 revenue from premiums amounted to \$551.4 million, and that from net interest on investments, etc. to \$31.2 million, a total of \$582.6 million. Expenditure on claims amounted to \$354.5 million, contributions to fire brigades \$13.1 million, commission and agents' charges \$50.7 million, expenses of management \$88.7 million, and taxation \$14.8 million, a total of \$521.8 million.

Premiums and claims

The following tables show the aggregate premium income less returns, rebates and bonuses, and claims or losses less amounts recoverable, for each State and for all classes of insurance other than life for the years 1960-61 to 1964-65.

**FIRE, MARINE AND GENERAL INSURANCE: PREMIUMS AND CLAIMS, STATES
1960-61 TO 1964-65**

(\$'000)

State	1960-61	1961-62	1962-63	1963-64	1964-65
GROSS PREMIUMS, LESS RETURNS, REBATES AND BONUSES					
New South Wales(a)	159,545	168,262	185,492	202,817	230,787
Victoria	124,848	129,701	135,487	145,832	163,408
Queensland	48,033	51,891	54,580	60,962	65,768
South Australia	31,957	33,342	36,951	41,201	44,772
Western Australia	23,584	25,023	27,319	30,025	33,079
Tasmania	9,846	10,211	11,427	12,248	13,567
Total	397,814	418,431	451,256	493,086	551,380
GROSS CLAIMS OR LOSSES, LESS AMOUNTS RECOVERABLE					
New South Wales(a)	113,026	114,899	119,254	141,481	159,152
Victoria	77,360	78,190	82,251	88,977	102,444
Queensland	31,555	32,100	35,208	44,189	40,210
South Australia	16,683	16,826	19,324	20,988	24,745
Western Australia	14,877	14,585	17,828	19,301	20,074
Tasmania	5,519	5,493	5,949	6,664	7,854
Total	259,021	262,094	279,814	321,599	354,479

(a) Excludes workers' compensation insurance in coal-mining industry in New South Wales.

**FIRE, MARINE AND GENERAL INSURANCE: PREMIUMS AND CLAIMS, BY
PRINCIPAL CLASS OF RISK, AUSTRALIA, 1960-61 TO 1964-65**

(\$'000)

Class of risk	1960-61	1961-62	1962-63	1963-64	1964-65
GROSS PREMIUMS, LESS RETURNS, REBATES AND BONUSES					
Fire	67,684	71,073	73,846	78,881	81,664
Householders' comprehensive	21,629	23,848	26,761	29,827	33,357
Employers' liability and workers' compensation(a)	87,650	87,258	88,014	95,783	114,506
Motor vehicle—					
Compulsory third party	46,189	51,800	61,398	68,388	74,974
Other	105,324	112,961	120,436	134,241	151,478
Marine	17,676	17,157	19,153	21,203	23,373
Personal accident	13,751	14,340	15,900	15,736	18,071
All other	37,911	39,993	45,747	49,027	53,958
Total	397,814	418,431	451,256	493,086	551,380
GROSS CLAIMS OR LOSSES, LESS AMOUNTS RECOVERABLE					
Fire	24,014	24,932	26,405	32,973	30,563
Householders' comprehensive	4,570	6,271	6,724	7,302	8,332
Employers' liability and workers' compensation(a)	63,743	67,850	70,009	76,006	83,203
Motor vehicle—					
Compulsory third party	45,839	50,436	54,649	64,879	70,559
Other	77,751	75,521	82,630	97,752	113,356
Marine	8,408	8,198	8,904	10,509	12,604
Personal accident	6,780	7,124	7,475	7,225	8,158
All other	27,916	21,762	23,016	24,954	27,706
Total	259,021	262,094	279,814	321,599	354,479

(a) Excludes workers' compensation insurance in coal-mining industry in New South Wales.

The Export Payments Insurance Corporation

The Export Payments Insurance Corporation was established under the *Export Payments Insurance Corporation Act 1956* to provide exporters with insurance against risks associated with overseas trade which are not usually acceptable to commercial insurers. The Corporation commenced business in 1957. Where the Corporation is not in a position to accept business on its commercial account it may be authorized under its statute to provide insurance facilities on the Commonwealth Government's account in the national interest. See also the chapter Oversea Transactions, page 404.

EXPORT PAYMENTS INSURANCE CORPORATION: BUSINESS, 1960-61 TO 1964-65

	1960-61	1961-62	1962-63	1963-64	1964-65
Commercial business—					
Number of policy holders	199	298	373	436	509
	\$'000	\$'000	\$'000	\$'000	\$'000
Face value of policies current	52,098	65,904	88,956	127,492	160,424
Maximum contingent liability	28,164	35,122	46,192	66,672	83,164
Premium income	120	186	238	330	387
Operating costs	138	158	166	200	233
Claims paid (gross)	30	44	76	90	321
Recoveries	16	10	26	24	72
Underwriting reserve	304	410	560	152	785
National interest business—					
Number of policy holders	..	..	..	1	1
	\$'000	\$'000	\$'000	\$'000	\$'000
Face value of policies current	..	..	..	2,594	2,594
Maximum contingent liability	..	..	..	2,142	2,142

INSTALMENT CREDIT FOR RETAIL SALES

Information relating to instalment credit for retail sales in Australia is given in the following tables. Information in more detail may be found in the annual bulletin *Insurance and Other Private Finance* and in the monthly and quarterly statements relating to instalment credit for retail sales issued by this Bureau (see beginning of chapter).

The statistics cover operations of all types of instalment credit schemes which relate primarily to the financing of retail sales of goods, whether the credit is advanced by a retail business or by a non-retail finance business. In general, the term 'instalment credit' is defined as relating to schemes in which repayment is made by regular pre-determined instalments. Types of schemes covered include hire purchase, time payment, budget account, and personal loan schemes which relate primarily to the financing of retail sales of goods. In these statistics the term 'retail sales' relates not only to retail sales by retail establishments coming within the scope of the Censuses of Retail Establishments conducted periodically by this Bureau, but includes also other sales of goods to final purchasers (e.g. plant and machinery).

Figures for amounts financed *exclude* interest, hiring charges, insurance, etc. Figures for balances outstanding and collections *include* interest, hiring charges, insurance, etc. Details are not available of these charges or of other items (e.g. rebates allowed for early payments, late payment charges, bad debts written off) which affect the reconciliation of the three main instalment credit series—amount financed, collections, and balances outstanding.

Statistics of amounts financed are classified by type of goods, defined as follows: *motor vehicles* (new and used separately)—motor cars and motor cycles, commercial vehicles, tractors, caravans, trailers, motor parts and accessories, etc.; *plant and machinery*—farm machinery and implements, earth-moving equipment, aircraft, industrial plant and machinery, business machines and equipment (including commercial refrigeration equipment), etc.; *household and personal goods*—furniture, furnishings and floor coverings, domestic refrigerators, electrical goods, radios, television, musical instruments, bicycles, motor mowers, clothing, etc.

Further explanatory detail on these series may be found in the bulletin and statements referred to on page 735.

Total instalment credit, by type of business

The following table gives separate particulars of the instalment credit transactions of retail businesses and non-retail finance businesses for the years 1960-61 to 1964-65.

INSTALMENT CREDIT FOR RETAIL SALES, BY TYPE OF BUSINESS: AMOUNT FINANCED, BY COMMODITY GROUP, COLLECTIONS, AND BALANCES OUTSTANDING, AUSTRALIA, 1960-61 TO 1964-65 (\$ million)

Year	Amount financed during year				Collections during year	Balances outstanding at end of year	
	Motor vehicles, etc.		Plant and machinery	Household and personal goods			Total
	New	Used					
Retail businesses—							
1960-61	27.2		5.7	265.2	298.1	n.a.	398.5
1961-62	9.4	11.0	2.7	267.5	290.6	322.2	413.1
1962-63	9.4	11.5	3.6	281.7	306.3	355.3	425.3
1963-64	10.8	11.7	3.1	297.6	323.3	379.9	416.3
1964-65	10.7	10.8	2.4	288.3	312.2	381.6	395.0
Non-retail finance businesses—							
1960-61	371.7		42.2	106.4	520.4	680.8	803.5
1961-62	176.6	169.7	41.6	84.9	472.8	648.3	756.3
1962-63	214.1	229.0	47.0	86.1	576.2	654.3	832.1
1963-64	252.9	254.2	52.7	83.9	643.7	702.3	939.2
1964-65	287.9	271.6	64.9	84.2	708.5	764.5	1,050.3
All businesses—							
1960-61	398.9		48.0	371.6	818.5	n.a.	1,202.0
1961-62	186.0	180.7	44.3	352.4	763.4	970.5	1,169.4
1962-63	223.5	240.5	50.7	367.9	882.6	1,009.6	1,257.3
1963-64	263.7	265.9	55.8	381.5	967.0	1,082.3	1,355.6
1964-65	298.5	282.4	67.3	372.4	1,020.7	1,146.1	1,445.4

Total instalment credit, by type of credit

In the following table particulars are given for retail businesses and non-retail finance businesses combined, classified by type of instalment credit, for the years 1960-61 to 1964-65.

INSTALMENT CREDIT FOR RETAIL SALES, BY TYPE OF CREDIT: AMOUNT FINANCED, BY COMMODITY GROUP, AND BALANCES OUTSTANDING
AUSTRALIA, 1960-61 TO 1964-65
(\$ million)

Year	Amount financed during year				Balances outstanding at end of year
	Motor vehicles, etc.	Plant and machinery	Household and personal goods	Total	
Hire purchase—					
1960-61	382.6	47.2	205.0	634.7	1,020.9
1961-62	346.1	43.4	173.6	563.1	952.7
1962-63	428.8	49.9	177.0	655.7	1,003.3
1963-64	462.3	54.8	172.7	689.7	1,062.8
1964-65	463.2	64.4	163.1	690.7	1,068.4
Other instalment credit—					
1960-61	16.3	0.8	166.6	183.7	181.0
1961-62	20.5	0.9	178.8	200.3	216.7
1962-63	35.3	0.7	190.9	226.9	254.1
1963-64	67.4	1.0	208.8	277.3	292.8
1964-65	117.7	2.9	209.3	330.0	377.0
Total instalment credit—					
1960-61	398.9	48.0	371.6	818.5	1,202.0
1961-62	366.6	44.3	352.4	763.4	1,169.4
1962-63	464.0	50.7	367.9	882.6	1,257.3
1963-64	529.7	55.8	381.5	967.0	1,355.6
1964-65	580.9	67.3	372.4	1,020.7	1,445.4

Amount financed, by type of credit

Classifications of amount financed on new retail agreements, by type of instalment credit and by State, are given in the following tables.

INSTALMENT CREDIT FOR RETAIL SALES: AMOUNT FINANCED
BY TYPE OF CREDIT, STATES, 1960-61 TO 1964-65
(\$ million)

Year	N.S.W. (a)	Vic.	Qld	S.A. (b)	W.A.	Tas.	Aust.
Hire purchase—							
1960-61	239.9	174.5	88.5	63.7	49.3	18.7	634.7
1961-62	224.0	148.5	79.1	43.6	49.2	18.6	563.1
1962-63	260.0	164.2	98.4	52.1	58.6	22.4	655.7
1963-64	282.3	151.3	115.9	56.3	60.7	23.3	689.7
1964-65	298.9	136.4	114.3	57.4	59.6	24.2	690.7
Other instalment credit—							
1960-61	80.7	47.0	17.2	17.8	15.3	5.6	183.7
1961-62	91.1	46.0	21.5	21.4	14.9	5.4	200.3
1962-63	99.6	58.4	25.8	23.3	14.0	5.8	226.9
1963-64	117.3	82.5	32.6	25.9	13.9	5.1	277.3
1964-65	111.1	117.0	47.7	35.1	14.0	5.1	330.0
Total instalment credit—							
1960-61	320.6	221.6	105.8	81.5	64.7	24.4	818.5
1961-62	315.2	194.5	100.6	65.0	64.1	24.0	763.4
1962-63	359.6	222.6	124.2	75.4	72.6	28.2	882.6
1963-64	399.6	233.8	148.5	82.2	74.6	28.4	967.0
1964-65	410.0	253.4	162.0	92.4	73.6	29.3	1,020.7

(a) Includes Australian Capital Territory.

(b) Includes Northern Territory.

Amount financed, by type of credit and commodity group

The details shown for 1964-65 in the preceding table are classified by commodity groups below.

**INSTALMENT CREDIT FOR RETAIL SALES: AMOUNT FINANCED
BY TYPE OF CREDIT AND COMMODITY GROUP, STATES, 1964-65**
(\$ million)

Commodity group	N.S.W. (a)	Vic.	Qld	S.A. (b)	W.A.	Tas.	Aust.
Hire purchase—							
Motor vehicles, tractors, etc.	215.6	75.1	71.5	40.9	42.3	17.8	463.2
Plant and machinery	25.2	14.4	10.6	4.4	7.6	2.2	64.4
Household and personal goods	58.2	46.9	32.2	12.1	9.7	4.1	163.1
Total	298.9	136.4	114.3	57.4	59.6	24.2	690.7
Other instalment credit—							
Motor vehicles, tractors, etc.	2.7	70.2	22.8	16.7	5.1	0.2	117.7
Plant and machinery	0.4	1.0	1.3	0.1	0.1	..	2.9
Household and personal goods	108.0	45.8	23.6	18.3	8.7	4.9	209.3
Total	111.1	117.0	47.7	35.1	14.0	5.1	330.0
Total instalment credit—							
Motor vehicles, tractors, etc.	218.2	145.3	94.3	57.6	47.4	18.1	580.9
Plant and machinery	25.5	15.4	11.9	4.4	7.7	2.3	67.3
Household and personal goods	166.2	92.7	55.8	30.4	18.4	9.0	372.4
Total	410.0	253.4	162.0	92.4	73.6	29.3	1,020.7

(a) Includes Australian Capital Territory.

(b) Includes Northern Territory.

New hire purchase agreements—averages

The following are some additional particulars relating to new hire purchase agreements made during 1964-65.

**NEW HIRE PURCHASE AGREEMENTS: AVERAGE VALUE AND
AMOUNT AND PROPORTION FINANCED, BY COMMODITY
GROUP, AUSTRALIA, 1964-65**

Commodity group	Average value of goods purchased per agreement	Average amount financed per agreement	Average proportion financed
	\$	\$	Per cent
Motor vehicles, tractors, etc.	1,565	1,043	67
Plant and machinery	2,155	1,422	66
Household and personal goods	171	142	83
All groups	604	423	70

Balances outstanding, by type of credit

Details of the balances outstanding on retail agreements at 30 June 1961 to 1965 are given below.

**INSTALMENT CREDIT FOR RETAIL SALES: BALANCES OUTSTANDING
BY TYPE OF CREDIT, STATES, 30 JUNE 1961 TO 1965
(\$ million)**

30 June—	N.S.W. (a)	Vic.	Qld	S.A. (b)	W.A.	Tas.	Aust.
Hire purchase—							
1961	402.3	274.9	137.3	102.7	77.0	26.8	1,020.9
1962	387.7	245.8	128.9	85.9	76.9	27.5	952.7
1963	410.2	248.8	141.4	84.3	86.7	31.8	1,003.3
1964	440.9	240.5	168.1	87.5	91.3	34.4	1,062.8
1965	470.5	211.6	168.5	89.3	92.0	36.5	1,068.4
Other instalment credit—							
1961	74.3	50.0	17.4	19.6	12.1	7.5	181.0
1962	89.0	56.9	21.5	24.9	16.3	8.2	216.7
1963	100.5	69.7	26.7	30.9	17.6	8.7	254.1
1964	106.0	93.8	33.7	34.4	17.0	7.9	292.8
1965	103.8	141.5	62.4	45.9	15.7	7.7	377.0
Total instalment credit—							
1961	476.6	324.9	154.7	122.4	89.1	34.3	1,202.0
1962	476.7	302.7	150.4	110.8	93.2	35.7	1,169.4
1963	510.8	318.5	168.1	115.2	104.3	40.5	1,257.3
1964	546.9	334.3	201.8	122.0	108.4	42.3	1,355.6
1965	574.4	353.1	230.8	135.2	107.7	44.2	1,445.4

(a) Includes Australian Capital Territory.

(b) Includes Northern Territory.

NEW CAPITAL RAISINGS BY COMPANIES IN AUSTRALIA

Information relating to capital raised by companies in Australia is given in the following tables. More detailed information may be found in the annual bulletin *Insurance and Other Private Finance* and in quarterly bulletins dealing with capital raisings (see beginning of chapter).

The statistics (the collection of which commenced in July 1954) relate to capital raised by companies through issues of shares, and in the case of companies listed on stock exchanges, through the issue of debentures, notes and similar securities and the acceptance of deposits, and in the case of unlisted companies, by way of loans secured over the entire assets of the company. Capital obtained by way of bank overdraft or bank loans, trade credit, temporary advances, and loans secured over part only of the assets of the company is not included. Totally unsecured loans are included in the case of listed companies, but are excluded in the case of unlisted companies.

Separate statistics are given for listed and unlisted companies. Listed companies are companies incorporated in Australia or the Australian territories and listed on one or more of the Australian stock exchanges. All other companies incorporated in Australia, including subsidiaries of listed companies, are classified as unlisted companies. Companies incorporated overseas, whether listed on an Australian stock exchange or not, are excluded from the statistics of share issues. However, subsidiaries of overseas companies, if incorporated in Australia, are included in the statistics of share issues. The statistics of new capital raised through issues of debentures, notes, etc., and the acceptance of deposits, include, in addition to capital raised by companies incorporated in Australia (including subsidiaries of overseas companies), capital raised in this way from Australian sources by overseas public companies through their Australian offices.

The following are explanatory notes relating to some of the items shown in the tables.

New money. This is the net amount of cash transferred from the investing public to the companies. For this purpose the 'investing public' includes banks and life insurance companies (except when subscribing to issues by associated companies) and government and private superannuation funds, but excludes other government agencies. Subscriptions by associated companies, whether local or overseas, are excluded. In the tables which follow the amount of new money is obtained by deducting from the total cash raised the 'amount not involving a net transfer of funds from the investing public'.

Amounts not involving new money. These amounts include cash subscriptions received by issuing companies from associated companies. Such subscriptions represent inter-company transfers only, and do not involve a receipt of funds from the 'investing public'. Also included are amounts which, although subscribed by the 'investing public' (i.e. subscribers other than 'associated companies'), are not retained by the issuing company or its associates, but are used to redeem shares, debentures or unsecured notes, etc. or are used to purchase from individuals existing shares, debentures, etc. in other companies, including existing shares, etc. in associated and subsidiary companies. The funds used in this way are thus returned to another section of the 'investing public' and do not represent a *net* transfer of cash from the 'investing public' to the companies. (Besides these purchases of existing shares, etc. from individuals, purchases of existing shares, etc. from companies other than associates of the issuing company might also be included in this item, but the amounts involved are small and separate details have not been collected.)

Companies listed on Stock Exchanges

Details of new capital raised through issues of shares, debentures, or registered notes, or through accepting deposits are given in the following table for each of the years 1960-61 to 1964-65.

LISTED AUSTRALIAN COMPANIES(a): NEW CAPITAL RAISED THROUGH ISSUES OF SHARES, DEBENTURES, OR REGISTERED NOTES, ETC.(b), OR ACCEPTING DEPOSITS(c), 1960-61 TO 1964-65

(\$ million)

Year	Share capital						Debentures, registered notes and deposits		
	Value of issues commenced	Non-cash issues commenced (d)	Cash issues commenced	Cash raised during period (e)	Amounts not involving new money	New money	Total amount raised (f)	Amounts not involving new money (f)	New money
1960-61	527.2	254.6	272.6	254.4	57.4	197.0	870.6	629.8	240.8
1961-62	383.0	145.8	237.2	189.8	37.4	152.4	762.4	563.2	199.2
1962-63	276.5	144.2	132.2	150.2	45.5	104.7	839.2	609.3	229.9
1963-64	260.1	119.0	141.1	169.2	42.8	126.4	907.7	745.5	162.2
1964-65	393.5	136.6	257.0	208.6	60.9	147.6	1,075.5	905.7	169.8

(a) Includes companies incorporated in the Australian Territories. (b) Includes convertible notes. (c) Deposits accepted by banks, life insurance companies, pastoral companies and building societies, and loans to authorized dealers in the short-term money market are not included. (d) Includes bonus issues, conversion issues, issues in exchange for existing shares, etc. (e) Amounts paid up on issues commenced during the year plus calls on issues commenced in earlier years. (f) Includes conversions, renewals, etc.

Companies not listed on Stock Exchanges

Details of new capital raised by unlisted companies through issues of shares and loans secured by charges over the companies' entire assets are given in the following table for each of the years 1960-61 to 1964-65.

UNLISTED COMPANIES(a): NEW CAPITAL RAISED THROUGH ISSUES OF SHARES AND LOANS SECURED BY CHARGES OVER THE COMPANIES' ENTIRE ASSETS, 1960-61 TO 1964-65

(\$ million)

Year	Share capital						Loans secured by charges over the companies' entire assets		
	Value of issues commenced	Non-cash issues commenced (b)	Cash issues commenced	Cash raised during period (c)	Amounts not involving new money	New money	Total amount raised (d)	Amounts not involving new money (d)	New money
1960-61	667.0	416.6	250.4	242.0	172.2	69.8	49.2	30.6	18.6
1961-62	503.6	268.6	235.0	216.6	161.8	54.8	48.0	34.2	13.8
1962-63	412.6	218.7	193.9	204.8	159.1	45.7	58.8	45.4	13.3
1963-64	432.3	222.5	209.9	211.6	163.2	48.4	68.7	46.1	22.6
1964-65	563.5	303.1	260.5	233.9	182.2	51.7	65.3	40.1	25.2

(a) Excludes companies incorporated in the Northern Territory and Australian External Territories for 1962-63 and previous years, but includes Northern Territory incorporations for 1963-64 and subsequent years. (b) Includes bonus issues, conversion issues, issues in exchange for existing shares, etc. (c) Amounts paid up on issues commenced during year plus calls on issues commenced in previous years. (d) Includes conversions, renewals, etc.

Listed and unlisted companies—new money raised, classified by industry group

A summary of new money raised by listed and unlisted companies during each of the years 1960-61 to 1964-65, as shown in the preceding tables, is given below, together with a classification by industry groups of the amounts raised.

LISTED AND UNLISTED COMPANIES: NEW MONEY RAISED, BY INDUSTRY GROUP, 1960-61 TO 1964-65
(\$ million)

Year	Companies listed on stock exchanges			Companies not listed on stock exchanges			Grand total
	Share capital (a)	Debentures, registered notes and deposits (b)	Total	Share capital (a)	Secured loans (c)	Total	
Manufacturing—							
1960-61	75.8	49.8	125.6	12.4	6.8	19.2	144.8
1961-62	84.2	58.8	143.0	11.0	3.0	14.0	157.0
1962-63	40.4	28.0	68.4	10.5	3.5	14.0	82.4
1963-64	31.9	12.9	44.8	10.0	18.3	28.3	73.1
1964-65	78.2	28.2	106.4	12.6	19.8	32.2	138.6
Finance and property(b)—							
1960-61	40.4	122.8	163.2	21.0	7.4	28.4	191.6
1961-62	12.0	90.2	102.2	16.2	5.4	21.6	123.8
1962-63	11.9	153.0	164.9	12.8	3.8	16.6	181.5
1963-64	21.8	89.9	111.7	15.5	2.7	18.2	129.9
1964-65	13.1	120.2	133.3	11.4	1.8	13.2	146.5
Commerce—							
1960-61	43.2	45.2	88.4	13.2	2.0	15.2	103.6
1961-62	27.4	27.2	54.6	10.2	1.4	11.6	66.2
1962-63	23.0	34.2	57.2	8.2	2.3	10.5	67.7
1963-64	44.3	49.0	93.3	7.8	0.6	8.4	101.7
1964-65	23.0	5.0	28.0	9.6	0.6	10.2	38.2
Other industries—							
1960-61	37.6	23.0	60.6	19.4	2.4	21.8	82.4
1961-62	28.8	23.0	51.8	14.4	4.0	18.4	70.2
1962-63	29.5	14.9	44.4	11.4	3.9	15.3	59.7
1963-64	28.3	10.1	38.4	11.6	1.3	12.9	51.3
1964-65	33.3	16.5	49.8	15.1	3.1	18.2	68.0
All industries—							
1960-61	197.0	240.8	437.8	(d)69.8	18.6	(d)88.4	(d)526.2
1961-62	152.4	199.2	351.6	54.8	13.8	68.6	420.2
1962-63	104.7	229.9	334.6	45.7	13.3	59.0	393.6
1963-64	126.4	162.2	288.6	48.4	22.6	71.0	359.6
1964-65	147.6	169.8	317.4	51.7	25.2	76.9	394.3

(a) Includes preference shares. (b) Excludes deposits accepted by banks, insurance companies, pastoral companies and building societies, and loans to authorized dealers in the short-term money market. (c) Includes only loans which are secured by charges over the company's entire assets. (d) Small share issues of less than \$2,000 for which returns have not been collected have not been included in the industrial classification but are included in All industries.

UNIT TRUSTS, LAND TRUSTS AND MUTUAL FUNDS

Statistics relating to operations in Australia of unit trusts, land trusts and mutual funds have been collected quarterly since March 1961 and are shown in the following tables. The figures do not include details of superannuation funds conducted by unit trusts management companies.

Transactions of trusts and funds

Particulars of cash transactions in trust units and fund shares and of purchases and sales of investments by trusts and funds are given in the following table.

**TRUSTS AND FUNDS: TRANSACTIONS, YEARS 1961-62 TO 1964-65
AND QUARTERS SEPTEMBER 1964 TO DECEMBER 1965**

(\$ million)

Period	Cash transactions— trust units and fund shares		Purchases and sales of investments(a)	
	Total amount received (b)	Total amount paid (c)	Purchases (d)	Sales (e)
Year—				
1961-62	34.9	13.9	23.3	7.0
1962-63	31.7	14.0	27.4	9.7
1963-64	44.9	20.4	35.2	10.6
1964-65	36.0	22.6	31.3	18.8
Quarter—				
September 1964 .	10.2	6.5	8.8	5.0
December 1964 .	10.5	6.9	9.3	6.4
March 1965 . . .	6.8	5.4	6.4	4.8
June 1965	8.5	4.0	6.8	2.7
September 1965 .	6.1	3.1	7.0	4.8
December 1965 .	6.8	5.1	5.1	4.3

(a) Commonwealth Government, local and semi-governmental authority, securities, shares, debentures, unsecured notes, loans, deposits on term or notice of three months or longer, land and buildings, etc. (b) For trust units and fund shares issued. Includes re-issues and new issues. Includes fees and expenses. (c) For trust units and fund shares repurchased. Includes those units and fund shares intended for re-issue. (d) Payments for assets acquired during period. Includes brokerage and stamp duty. (e) Receipts for assets sold or redeemed during period. Excludes brokerage and stamp duty.

Analysis of purchases and sales of investments

Details of purchases and sales of investments by trusts and funds for the years 1961-62 to 1964-65 are given in the following table.

**TRUSTS AND FUNDS: ANALYSIS OF PURCHASES AND SALES OF
INVESTMENTS, 1961-62 TO 1964-65**
(\$ million)

Year	Shares (incl. preference shares)	Debentures, unsecured notes, deposits (a)	Cw/ith Govt, local and semi-govt authority securities	Other (b)	Total
Purchases—					
1961-62	18.3	2.8	0.1	2.2	23.3
1962-63	19.1	5.2	0.1	3.0	27.4
1963-64	25.0	6.8	0.1	3.2	35.2
1964-65	19.3	6.1	0.1	6.0	31.3
Sales—					
1961-62	5.4	0.4	0.4	0.8	7.0
1962-63	6.4	0.7	0.7	1.9	9.7
1963-64	7.7	1.9	0.1	0.9	10.6
1964-65	13.7	2.7	0.1	2.3	18.8

(a) Excludes cash on hand and at bank, loans to authorized dealers in the short-term money market, and other deposits under three months term or notice. (b) Includes land and buildings, mortgages on land and buildings, and other investments.

Market value of trusts and funds, and cash and short-term deposits of trusts and funds

The total market value of trusts and funds and the cash and short-term deposits of trusts and funds are shown in the following table.

**TRUSTS AND FUNDS: TOTAL MARKET VALUE AND CASH
AND SHORT-TERM DEPOSITS, JUNE 1961 TO DECEMBER 1965**
(\$ million)

At—	Total market value of trusts and funds(a)	Cash and short-term deposits		
		Cash(b)	Short-term deposits(c)	Total
30 June 1961	168.0	1.2	6.4	7.6
30 June 1962	183.6	1.1	7.2	8.3
30 June 1963	207.7	2.1	5.7	7.8
30 June 1964	249.8	1.6	6.4	8.0
30 September 1964	251.1	1.6	6.7	8.3
31 December 1964	252.7	1.9	6.6	8.6
31 March 1965	230.5	1.5	5.4	6.9
30 June 1965	222.2	2.0	5.6	7.6
30 September 1965	225.1	2.2	5.8	8.0
31 December 1965	229.3	2.4	5.7	8.0

(a) Includes value of land trusts at valuation. (b) Includes cash on hand and at bank. (c) Includes loans to authorized dealers in the short-term money market and other deposits under three months term or notice.

PASTORAL FINANCE COMPANIES**Rural advances**

The following table is derived from returns supplied to the Reserve Bank by major pastoral finance companies and shows the total rural advances outstanding at the end of June 1960 to 1964 and of subsequent quarters to December 1965.

**PASTORAL FINANCE COMPANIES: RURAL ADVANCES(a), STATES
JUNE 1960 TO DECEMBER 1965**

(Source: Reserve Bank of Australia)
(\$ million)

End of—	New South Wales	Victoria	Queensland	South Australia	Western Australia and Tasmania	Total
June 1960	59.3	35.3	48.7	29.8	30.8	203.9
„ 1961	59.7	39.9	46.8	34.8	31.8	212.9
„ 1962	58.8	32.9	48.6	34.8	33.0	208.0
„ 1963	61.4	35.6	49.9	33.1	33.8	213.7
„ 1964	64.1	39.0	51.9	36.3	37.1	228.3
September 1964	72.7	47.0	55.7	38.1	40.6	254.1
December 1964	71.5	52.5	59.7	41.3	45.1	270.2
March 1965	67.8	49.3	58.6	40.8	45.4	261.8
June 1965	66.6	43.9	58.5	42.8	47.1	258.9
September 1965	73.0	48.7	60.9	45.4	46.6	274.6
December 1965	71.4	50.3	58.8	46.6	44.3	271.5

(a) Compiled from returns supplied by major pastoral finance companies. Advances are classified according to the location of the branch holding the advance, which in some cases may differ from the State of residence of the borrower. The statistics refer to the total advances outstanding at the end of the month shown.

Liabilities and assets

The following table gives details of the liabilities and assets of pastoral finance companies at the end of June 1962 and subsequent quarters to December 1965.

PASTORAL FINANCE COMPANIES: LIABILITIES AND ASSETS(a)
JUNE 1962 TO DECEMBER 1965

(Source: Reserve Bank of Australia)

(\$ million)

LIABILITIES

End of—	Balances due to banks	Clients' credit balances	Debentures, notes and deposits		Other outside liabilities	Shareholders' funds	Overseas liabilities	Total liabilities/assets
			Maturing within twelve months	Other				
June 1962 . . .	50.9	38.8	26.9	13.0	77.6	107.1	108.7	423.0
„ 1963 . . .	48.1	46.3	18.9	15.7	88.5	112.1	104.9	434.6
„ 1964 . . .	49.6	51.6	18.9	20.0	98.1	130.3	107.2	475.8
September 1964 . . .	68.0	53.8	20.5	21.5	111.5	132.3	109.3	517.0
December 1964 . . .	70.6	53.6	26.1	21.3	104.8	138.4	115.3	530.1
March 1965 . . .	60.8	50.6	29.0	21.6	114.2	138.7	114.4	529.3
June 1965 . . .	74.5	42.9	19.9	22.5	86.6	138.0	114.1	498.6
September 1965 . . .	72.9	40.5	21.9	24.7	106.4	139.7	124.7	530.9
December 1965 . . .	75.1	42.2	29.9	25.8	99.3	143.0	126.8	542.0

ASSETS

End of—	Cash and deposits with banks	Loans to authorized money market dealers	Other short-term assets (b)	Cwlth Govt securities	Advances and sundry debtors		Stocks	Fixed assets	Other assets
					Rural	Other			
June 1962 . . .	5.3	0.1	8.6	13.9	208.0	20.5	28.1	116.0	22.6
„ 1963 . . .	5.6	2.1	10.2	14.6	213.7	22.7	29.2	117.3	19.1
„ 1964 . . .	10.7	1.9	8.8	20.0	228.3	23.6	32.1	124.5	25.8
September 1964 . . .	11.3	0.1	12.4	23.2	254.1	31.3	33.1	127.5	24.0
December 1964 . . .	10.7	0.1	11.1	15.5	270.2	33.9	33.5	130.7	24.3
March 1965 . . .	10.5	1.2	14.7	19.6	261.8	32.4	33.6	131.4	24.0
June 1965 . . .	5.4	1.1	1.0	14.0	258.9	24.3	35.2	133.5	25.3
September 1965 . . .	9.5	1.4	5.8	9.6	274.6	31.7	34.7	138.6	25.1
December 1965 . . .	8.7	2.2	8.6	19.7	271.5	31.5	34.1	140.9	24.8

(a) Compiled from returns supplied by major pastoral finance companies.
 (b) Excludes Commonwealth Government securities.

RURAL DEBT

Major sources of credit for rural purposes include banks, Commonwealth and State government financial agencies, pastoral finance companies, and life insurance companies. The following table shows the estimated rural debt to these lenders.

ESTIMATED RURAL DEBT TO SPECIFIED LENDERS
30 JUNE 1961 TO 1965

(Source: Reserve Bank of Australia)

(\$ million)

Lender	30 June—				
	1961	1962	1963	1964	1965
Major trading banks	451	479	495	514	584
Ex-service settlement	114	118	113	108	104
Other government incl. State banks and and State savings banks	146	159	169	191	216
Pastoral finance companies	213	208	214	228	258
Commonwealth Development Bank	21	34	45	55	72
Life insurance companies	48	51	52	56	66
Total	993	1,049	1,088	1,152	1,300

In addition, credit is supplied to the rural sector by finance companies, merchants, co-operative producer organizations, and by private lenders and investors, the most noteworthy of these last-mentioned sources involving family arrangements and property vendors. No data are currently available on the extent of the outstanding debt by the rural sector to these sources.

SHORT-TERM MONEY MARKET

For some years prior to 1959 leading stockbrokers had been actively engaged in the acceptance of short-term funds against the security of government securities, but their operations were limited by the absence of suitable short-term securities and their liquidity requirements. In February 1959 the Commonwealth Bank (now the Reserve Bank) gave official status to the market by announcing that under certain conditions it would act as lender of last resort to authorized dealers in the short-term money market.

The form of organization at March 1965 consisted of nine companies whose functions were:

- (i) to accept loans overnight, at call or for fixed periods, in minimum amounts of \$50,000 and to invest these funds in Commonwealth Government securities with currencies not exceeding three years and, since March 1965, in commercial bills that had been accepted or endorsed by a trading bank; and
- (ii) to engage as traders in the buying and selling of these specific classes of securities.

Dealers are required to have a minimum paid-up capital of \$400,000 and a level of shareholders' funds sufficient to permit the lodgment of 'margins' with the Reserve Bank, in the form of Commonwealth Government securities, as general backing for their operations. These securities lodged as margins are required to be, on market values, equivalent to at least:

- (a) one-half per cent of the dealer's holding of Treasury Notes;
- (b) one per cent of the dealer's holding of Commonwealth Government securities and commercial bills maturing within one year;
- (c) two per cent of the dealer's holding of Commonwealth Government securities maturing within one to two years; and
- (d) four per cent of the dealer's holding of Commonwealth Government securities maturing within two to three years.

The total amount of loans a dealer may accept is determined by the Reserve Bank in relation to the level of the dealer's shareholders' funds. Under the lender of last resort arrangements the dealer may borrow from the Reserve Bank against the lodgment of securities.

Selected assets and liabilities of authorized dealers and rates of interest on loans accepted

In the following table details of selected assets and liabilities of authorized dealers and the interest rates on loans accepted by dealers are given for June 1960 to 1964 and for each month January to December 1965.

SHORT-TERM MONEY MARKET: SELECTED LIABILITIES AND ASSETS AND INTEREST RATES OF AUTHORIZED DEALERS, JUNE 1960 TO DECEMBER 1965

(Source: Reserve Bank of Australia)

Month	Liabilities to clients			Holdings of Common- wealth Government securities (at face value)	Interest rates on loans accepted during month				Weighted average interest rate on loans out- standing (a) per cent per annum
	All cheque- paying banks	Other clients	Total		At call		For fixed periods		
					Mini- mum per cent per annum	Maxi- mum per cent per annum	Mini- mum per cent per annum	Maxi- mum per cent per annum	
Average of weekly figures— \$ million									
June 1960 . . .	54.3	105.5	159.8	164.6	2.75	3.50	3.00	3.50	3.25
" 1961 . . .	68.8	125.5	194.3	200.8	2.50	4.88	3.50	4.83	4.17
" 1962 . . .	55.8	177.1	232.9	242.3	2.00	4.00	3.00	3.88	3.45
" 1963 . . .	58.0	209.1	267.1	286.8	2.00	4.25	3.13	4.25	3.75
" 1964 . . .	67.3	253.6	320.8	341.2	1.50	4.50	3.38	4.50	3.71
1965—									
January . . .	111.7	218.5	330.2	346.9	1.00	4.63	3.00	4.75	3.53
February . . .	88.0	222.1	310.1	333.5	1.00	5.00	3.25	5.00	3.47
March . . .	82.7	221.5	304.2	321.6	1.00	5.03	2.75	5.50	3.63
April . . .	48.9	214.5	263.4	315.8	2.00	6.00	3.50	6.00	4.31
May . . .	89.7	223.8	313.5	337.9	2.00	5.50	3.63	5.50	4.36
June . . .	93.7	219.0	312.7	343.4	1.50	6.00	2.00	5.53	4.16
July . . .	71.3	235.6	306.9	322.4	2.50	5.75	3.50	5.38	4.31
August . . .	76.3	251.6	327.9	338.0	2.00	5.53	2.50	5.25	4.30
September . . .	70.8	260.6	331.4	335.0	2.00	5.75	4.00	5.38	4.35
October . . .	76.8	250.9	327.7	329.3	1.50	6.00	3.75	5.25	4.06
November . . .	74.4	256.1	330.5	339.4	1.00	5.75	2.00	5.75	3.96
December(b) . . .	92.1	251.6	343.8	360.8	1.00	6.13	2.50	5.50	4.07

(a) Average of weekly figures commencing October 1963; previously as at last Wednesday.
one Wednesday in December.

(b) Excludes

Authorized dealers' liabilities classified by type of client

The following table shows a classification of authorized dealers' liabilities by type of client as at 30 June 1964 and 1965.

SHORT-TERM MONEY MARKET: AUTHORIZED DEALERS' LIABILITIES BY TYPE OF CLIENT(a), 30 JUNE 1964 AND 1965

(Source: Reserve Bank of Australia)

(\$ million)

Client	30 June 1964	30 June 1965
All cheque-paying banks	110.5	93.9
Savings banks	34.5	32.1
Insurance offices	7.4	6.7
Superannuation, pension and provident funds	12.7	6.7
Hire purchase and other instalment credit companies	2.8	4.7
Companies, n.e.i.	69.8	56.5
Commonwealth and State Governments	42.2	33.6
Local government and semi-governmental authorities, n.e.i.	45.5	52.3
All other lenders(b)	12.0	15.7
Total	337.3	302.2

(a) Compiled from returns supplied by authorized dealers in the short-term money market. Liabilities to Reserve Bank as lender of last resort are excluded.
(b) Includes marketing boards and trustee companies.

FRIENDLY SOCIETIES, REGISTERED BUILDING SOCIETIES AND CO-OPERATIVE SOCIETIES

Friendly societies

The total membership of friendly societies in Australia is about 430,000, but as certain benefits such as medical attendance and free medicines, and in many cases funeral expenses, are granted to members' families as well as to members themselves, this figure must be more than doubled to arrive at an estimate of the number of persons who receive some direct benefit from these societies, even when due allowance is made for young and unmarried members. Legislation has conferred certain privileges on friendly societies, but, on the other hand, it insists on their registration, and it is the duty of the Registrars in the various States, prior to registering a new society, to see that its proposed rules conform to the law, and that the scale of contribution is sufficient to provide the promised benefits. Societies are obliged to forward to the Registrar annual returns about their membership and their finances, and reports are published in most of the States dealing with the returns received.

Societies, members and revenue

The following table sets out the number of societies, members, etc., revenue and expenditure, and funds of registered societies for the year. More detailed information is available in the bulletin *Insurance and Other Private Finance*, and issue No. 3, 1964-65, contains particulars for the year 1963-64.

FRIENDLY SOCIETIES(a): SUMMARY, STATES, 1963-64

	New South Wales (b)	Victoria (c)	Queens- land	South Aus- tralia	Western Aus- tralia	Tas- mania (c)	Total
Registered societies	44	132	21	14	11	8	230
Branches	1,723	1,167	427	569	255	114	4,255
Benefit members at end of year	147,120	155,105	57,171	50,946	17,120	5,778	433,240
Average benefit members during year	147,621	156,867	55,786	50,857	17,304	6,071	434,506
Members who received sick pay	n.a.	27,224	7,915	8,448	2,716	1,156	n.a.
Total weeks sick pay granted	n.a.	442,963	129,377	167,367	57,238	21,611	n.a.
Average weeks per member sick	n.a.	16.3	16.3	19.8	21.1	18.7	n.a.
Deaths of benefit members	n.a.	2,576	1,152	1,078	329	304	n.a.
Proportion of deaths per 1,000 members (average)	n.a.	16.4	20.7	21.2	19.0	50.0	n.a.
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Revenue—							
Entrance fees, levies and members' contributions	9,554	6,824	2,009	4,013	1,430	39	23,869
Interest, dividends and rents	978	1,432	410	642	121	76	5,482
All other revenue	1,149	184		370	110	12	
Total revenue	11,680	8,440	2,419	5,024	1,661	127	29,351
Expenditure—							
Sick pay	437	588	173	178	47	19	1,442
Medical attendance and medicine	6,876	4,471	1,343	3,089	1,213	4	16,996
Sums payable at death	462	232	135	128	37	47	1,041
Administration	1,849	1,535	501	752	136	30	4,804
All other expenditure	462	530	..	235	118	10	1,355
Total expenditure	10,086	7,355	2,153	4,382	1,551	111	25,637
Funds—Total	23,393	27,870	7,674	12,989	3,814	1,372	77,112

(a) Excludes juvenile branches, dispensaries, medical institutes, and certain miscellaneous societies. Receipts and payments of subsidy under the Commonwealth medical and hospital benefit schemes are excluded.
(b) Includes the Australian Capital Territory. (c) Year 1964.

Registered building societies

Summary

During 1962-63 and 1963-64 returns were received from 2,838 and 3,162 societies respectively, but the information was not exhaustive, as particulars regarding a number of organizations were not included. In the following table general information is given relating to the societies in each State for the year 1963-64 and to the combined States for 1962-63. More detailed information is available in the mimeographed bulletin *Registered Building Societies*. Issue No. 3 contains information for the year 1964-65.

REGISTERED BUILDING SOCIETIES: SUMMARY, STATES, 1963-64 AND TOTAL 1962-63

	1963-64(a)							1962-63 (a)
	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total	Total
Societies making returns—								
Permanent	50	31	13	5	10	7	116	115
Starr-Bowkett	98	1	2	21	1		123	123
Terminating(b)	1,803	797	210	..	59	54	2,923	2,600
Total	1,951	829	225	26	70	61	3,162	2,838
Shareholders	171,302	56,963	37,631	25,348	31,012	11,938	334,194	318,265
Borrowers	n.a.	63,105	22,091	6,012	10,365	5,074	n.a.	n.a.
Working expenses . \$'000	4,510	3,574	478	144	292	128	9,126	8,438
Loans granted . \$'000	72,284	30,878	13,184	3,102	11,700	6,000	137,148	112,238

(a) At various balance dates within the financial year shown. terminating societies.

(b) Co-operative housing and other

Liabilities and assets

Particulars of liabilities and assets in 1963-64 of the societies mentioned in the previous paragraph are shown below, with totals for 1962-63.

REGISTERED BUILDING SOCIETIES: LIABILITIES STATES, 1963-64 AND TOTAL, 1962-63 (\$'000)

State	1963-64(a)						1962-63(a)
	Investing members' funds	Borrow- ing members' funds	Deposits	Loans due to govern- ment	Bank overdrafts and other liabilities	Total liabilities	Total liabilities
New South Wales	92,190	91,008	5,038	62,960	207,214	458,410	414,612
Victoria	13,612	41,230	16,398	49,460	126,138	246,838	230,108
Queensland	26,042	4,214	972	13,812	17,740	62,780	55,018
South Australia	8,242	..	1,720	4,976	66	15,004	13,382
Western Australia	14,950	600	8,282	12,588	5,280	41,700	32,952
Tasmania	6,462	326	8,314	2,956	1,782	19,840	15,888
Total	161,498	137,378	40,724	146,752	358,220	844,572	761,960

(a) At various balance dates within the financial year shown.

REGISTERED BUILDING SOCIETIES: ASSETS STATES, 1963-64 AND TOTAL, 1962-63 (\$'000)

State	1963-64(a)			1962-63(a)
	Advances on mortgage (b)	Other assets	Total assets	Total assets
New South Wales	442,848	15,562	458,410	414,612
Victoria	240,932	5,906	246,838	230,108
Queensland	59,756	3,024	62,780	55,018
South Australia	13,966	1,038	15,004	13,382
Western Australia	39,768	1,932	41,700	32,952
Tasmania	18,126	1,714	19,840	15,888
Total	815,396	29,176	844,572	761,960

(a) See footnote (a) to table above. (b) Includes advances on mortgage of terminating societies which are on a gross basis. Net advances may be derived by subtracting borrowing members' funds. See table above.

Co-operative societies

Co-operative societies are divided into three classes: (i) those engaged in the manufacture and marketing of primary products and trade requirements; (ii) those engaged in retailing general household requirements; and (iii) those engaged in activities covered by both classes (i) and (ii). The first class may be described briefly as Producers' Co-operative Societies and the second as Consumers' Co-operative Societies. The particulars given for New South Wales relate to societies registered under the Co-operation Act, 1923-1954. A summary of the business of all co-operative societies for the years 1963-64 or 1964 for all States except Western Australia is given in the following tables. Separate particulars for each of the three types of co-operative societies are given in the annual bulletin *Insurance and Other Private Finance*, and issue No. 3, 1964-65 contains details for 1963-64.

CO-OPERATIVE SOCIETIES, STATES, 1964

	N.S.W. 1963-64	Vic. 1963-64	Qld 1963-64	S.A. 1964	Tas. 1963-64
SUMMARY					
Societies	320	144	180	70	15
Branches	n.a.	n.a.	129	n.a.	17
Members	276,838	96,721	139,149	113,224	4,616
	\$'000	\$'000	\$'000	\$'000	\$'000
Gross turnover (sales)	276,804	98,228	153,766	41,814	7,077
Other income	1,836	2,397	7,600	3,468	836
<i>Total income</i>	<i>278,640</i>	<i>100,626</i>	<i>161,366</i>	<i>45,282</i>	<i>7,913</i>
Total purchases	269,961	77,628	121,824	33,297	5,874
Other expenditure			29,673	10,523	1,750
<i>Total expenditure</i>	<i>269,961</i>	<i>97,987</i>	<i>151,496</i>	<i>43,820</i>	<i>7,624</i>
Rebates and bonuses	6,418	743	3,062	2,459	43
Dividends on share capital	1,524	668	891	304	..
LIABILITIES (\$'000)					
Paid-up capital	30,036	13,346	18,503	5,825	1,129
Loan capital . . . . .	..	3,720	12,668	9,572	816
Bank overdrafts	19,051	8,308	9,501	2,877	467
Accumulated profits	21,457	2,114	5,721	1,498	261
Reserve funds			21,313	4,608	163
Sundry creditors	38,438	10,673	26,600	3,076	824
Other liabilities			2,397	5,808	644
<i>Total</i>	<i>108,982</i>	<i>52,286</i>	<i>98,153</i>	<i>33,264</i>	<i>4,305</i>
ASSETS (\$'000)					
Land and buildings	49,319	25,968	16,367	7,625	970
Machinery, plant and other fixed assets			26,185	4,343	419
Stocks	32,451	7,650	8,845	9,088	734
Sundry debtors	20,682	13,577	34,400	4,366	1,522
Cash in hand and on deposit	6,530	1,377	4,733	934	82
Profit and loss account			727	70	114
Other assets	6,530	2,986	7,424	6,839	465
<i>Total</i>	<i>108,982</i>	<i>52,286</i>	<i>98,153</i>	<i>33,264</i>	<i>4,305</i>

LOTTERIES AND BETTING

Lotteries

State Governments operate lotteries in New South Wales, Queensland and Western Australia. Tattersall Lotteries are operated under government licence in Victoria and also sell tickets under government licence in Tasmania and New Zealand. The statistics of sales of tickets and prizes for Victoria include sales and allotments of prizes in Tasmania and New Zealand by Tattersall of Victoria. Tasmanian Lotteries were operated under government licence until 30 September 1961, when they surrendered their licence. In general, revenue derived by the State Governments from these lotteries is used directly or indirectly to provide funds for expenditure on hospitals, charities, etc. For information as to the origin, purpose and method of payment of proceeds or taxes to State revenues see Year Book No. 46, page 808 and earlier issues.

Details of ticket sales, prizes allotted, and taxes paid and other net contributions to State Government revenues, relating to lotteries drawn during each of the years 1960-61 to 1964-65, are given in the following table.

**LOTTERIES: VALUE OF TICKET SALES, PRIZES ALLOTTED, TAXES PAID
AND OTHER NET CONTRIBUTIONS TO STATE GOVERNMENT REVENUES
1960-61 TO 1964-65**

(\$'000)

Year	New South Wales	Victoria	Queensland	Western Australia	Tasmania	Total
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TICKET SALES

1960-61 . .	33,340	21,544	12,960	2,700	210	70,754
1961-62 . .	38,596	19,976	13,380	3,250	(a)	75,202
1962-63 . .	44,430	20,684	13,600	3,900	(a)	82,614
1963-64 . .	47,126	21,340	14,180	3,924	(a)	86,570
1964-65 . .	48,830	21,675	14,460	3,725	(a)	88,690

PRIZES ALLOTTED

1960-61 . .	21,318	12,926	8,260	1,516	128	44,148
1961-62 . .	24,698	11,864	8,524	1,840	(a)	46,926
1962-63 . .	28,434	12,410	8,666	2,236	(a)	51,746
1963-64 . .	30,252	12,804	9,040	2,258	(a)	54,354
1964-65 . .	31,280	13,005	9,218	2,150	(a)	55,653

**TAXES PAID AND OTHER NET CONTRIBUTIONS TO
STATE GOVERNMENT REVENUES(b)**

1960-61 . .	10,760	6,514	3,488	814	64	21,640
1961-62 . .	12,614	6,350	3,626	968	(a)	23,558
1962-63 . .	14,734	6,404	3,680	1,146	(a)	25,964
1963-64 . .	15,550	6,608	3,818	1,138	(a)	27,114
1964-65 . .	15,079	6,719	3,854	1,151	(a)	26,803

(a) Licence surrendered 30 September 1961.
governments by Tattersall Lotteries in Victoria.

(b) Includes grants to Tasmanian and New Zealand

Betting

Estimates of totalizator investments and investments with licensed bookmakers for the years 1960-61 to 1964-65 are given in the following table.

**TOTALIZATOR INVESTMENTS AND INVESTMENTS WITH LICENSED
BOOKMAKERS: STATES AND AUSTRALIAN CAPITAL TERRITORY
1960-61 TO 1964-65**

(\$'000)

Year	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	Australian Capital Territory (a)	Total
TOTALIZATOR INVESTMENTS(a)								
1960-61	27,354	30,596	5,824	4,722	4,968	1,500	n.a.	74,964
1961-62	27,760	54,258	5,702	5,012	18,592	1,422	n.a.	112,746
1962-63	28,144	80,258	14,042	4,582	27,054	1,282	n.a.	155,362
1963-64	28,600	109,244	24,584	4,748	32,070	1,260	n.a.	200,506
1964-65	42,155	142,381	33,707	4,899	38,951	1,274	1,152	264,519

INVESTMENTS WITH LICENSED BOOKMAKERS(b)

1960-61	223,822	157,170	n.a.	57,844	43,502	26,316	n.a.	n.a.
1961-62	227,086	151,648	n.a.	56,884	28,354	25,950	n.a.	n.a.
1962-63	237,338	151,084	106,338	56,012	22,668	26,694	n.a.	609,044
1963-64	238,938	154,446	107,970	57,442	20,988	28,440	n.a.	608,224
1964-65	279,389	159,723	116,797	61,045	20,434	32,612	n.a.	670,000

(a) From 1 September 1964 to 31 July 1965. Off-course investments only. betting with licensed bookmakers.

(b) Estimated from taxes on

PENSION AND SUPERANNUATION SCHEMES

**Government, local government and semi-governmental pension and
superannuation schemes**

The Commonwealth and all State Governments have established pension and superannuation schemes for their employees. These schemes are operated through funds to which both the Governments and their employees make contributions. Employees of local government and semi-governmental authorities are covered either by the Commonwealth and State Government schemes or by a separate scheme of the authority which is operated either through a separately constituted fund or through a life insurance office.

Schemes operated through separately constituted funds

The following table gives particulars of schemes operated through separately constituted funds.

**GOVERNMENT, LOCAL GOVERNMENT AND SEMI-GOVERNMENTAL PENSION
AND SUPERANNUATION SCHEMES OPERATED THROUGH SEPARATELY
CONSTITUTED FUNDS, 1963-64**

	Cwth	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
Income—	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Contributions—								
Employees	30,912	16,078	11,361	2,964	2,943	2,134	1,461	67,853
Employing authorities	23,971	37,736	15,961	3,818	3,151	2,630	1,278	88,545
Interest, dividends and rent	14,282	14,721	10,011	1,858	2,134	1,100	867	44,973
Other income	2	521	441	12	19	94	32	1,122
<i>Total income</i>	<i>69,167</i>	<i>69,056</i>	<i>37,774</i>	<i>8,652</i>	<i>8,247</i>	<i>5,958</i>	<i>3,639</i>	<i>202,492</i>
Expenditure—								
Pensions	26,542	25,510	15,548	1,975	4,012	2,874	1,423	77,882
Lump sum payments—								
On retirement	2,080	5,912	1,760	198	159	57	115	17,526
On resignation(a)	4,089		1,833	393	339	310	282	
Gratuities	1,923	521	46					2,490
Other expenditure	64	1,256	1,535	26	200	28	13	3,121
<i>Total expenditure</i>	<i>34,697</i>	<i>33,199</i>	<i>20,720</i>	<i>2,592</i>	<i>4,711</i>	<i>3,269</i>	<i>1,832</i>	<i>101,019</i>
Assets at end of year—								
Cash—								
Deposits with Treasury	136	1,514	2,041	25,246	522	188		29,646
Other deposits and cash	2	7,083	690	236	676	324	266	9,277
Commonwealth Govt securities	75,512	6,112	18,691		9,817	203	3,715	114,050
Local and semi-govt securities	200,407	202,315	144,372	15,958	15,708	22,208	8,227	609,195
Mortgages—								
Housing			89		17,568		4,214	21,871
Other	9,799	3,910	304			17	71	14,101
Loans to building societies	333	14,307	1,873	419		80	19	17,032
Company shares, debentures and notes	209	60,465	3,824		5		35	64,538
Other assets	5,464	5,267	33,346	5	438	389	241	45,150
<i>Total assets</i>	<i>291,863</i>	<i>300,974</i>	<i>205,231</i>	<i>41,865</i>	<i>44,734</i>	<i>23,409</i>	<i>16,789</i>	<i>924,865</i>
Less Sundry creditors, etc.	973	3,089	656	102	33	51	219	5,123
<i>Accumulated funds</i>	<i>290,890</i>	<i>297,885</i>	<i>204,575</i>	<i>41,763</i>	<i>44,701</i>	<i>23,357</i>	<i>16,570</i>	<i>919,741</i>
Contributors at end of year—	No.	No.	No.	No.	No.	No.	No.	No.
Males	175,977	133,134	83,537	15,542	19,232	15,160	8,263	460,693
Females				5,071	2,341		2,436	
Pensions at end of year—								
Ex-employees—								
Males	14,932	23,489	10,257	1,508	3,123	2,790	1,014	61,543
Females	1,179		1,521	480	619	318	313	
Widows	8,416	3,849	7,557	532	2,582	1,987	769	25,692
Children	2,176	525	1,066	138	247	180	131	4,463

(a) Includes refunds of contributions to continuing members and to members withdrawing from the scheme.

Schemes operated through life insurance offices

The table below gives particulars of schemes operated through life insurance offices.

**LOCAL GOVERNMENT AND SEMI-GOVERNMENTAL PENSIONS AND SUPER-
ANNUATION SCHEMES OPERATED THROUGH LIFE INSURANCE OFFICES
1960-61 TO 1963-64**

	1960-61	1961-62	1962-63	1963-64
Income—	\$'000	\$'000	\$'000	\$'000
Contributions—				
Employees	4,198	3,576	4,164	4,892
Employing authorities	4,384	4,260	4,952	5,856
	No.	No.	No.	No.
Contributors at end of year	46,557	49,754	51,119	56,619

Parliamentary pension and superannuation schemes

Pensions and superannuation schemes have been established for members of the Commonwealth and State Parliaments. All the schemes are operated through funds to which the members of Parliament and the Commonwealth or State Governments contribute.

PARLIAMENTARY PENSION AND SUPERANNUATION SCHEMES, 1963-64

—	Cwlth	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Income—								
Contributions—								
Members	95	73	51	32	20	33	33	337
Government	128	46	103	32	43	33	1	386
Interest	54	23	4	47	18	15	6	167
<i>Total income</i>	<i>277</i>	<i>141</i>	<i>159</i>	<i>110</i>	<i>81</i>	<i>82</i>	<i>40</i>	<i>890</i>
Expenditure—								
Pension payments(a)	187	77	107	35	34	38	28	505
Other	1	..	..	..	2	..	7	10
<i>Total expenditure</i>	<i>187</i>	<i>77</i>	<i>107</i>	<i>35</i>	<i>35</i>	<i>38</i>	<i>35</i>	<i>515</i>
Assets at end of year—								
Cash—								
Deposits with Treasury	21	9	40	..	10	3	..	84
Other deposits and cash . . . . .	..	..	..	..	..	..	6	6
Commonwealth Government securities	597	90	64	..	163	45	61	1,021
Local government and semi-governmental securities	502	372	200	894	197	257	4	2,426
Other assets . . . . .	..	51	..	8	5	4	1	69
<i>Total assets</i>	<i>1,120</i>	<i>521</i>	<i>304</i>	<i>903</i>	<i>375</i>	<i>310</i>	<i>72</i>	<i>3,606</i>
<i>Less Sundry creditors, etc.</i>	<i>..</i>	<i>17</i>	<i>..</i>	<i>..</i>	<i>..</i>	<i>..</i>	<i>3</i>	<i>20</i>
<i>Accumulated funds</i>	<i>1,120</i>	<i>504</i>	<i>304</i>	<i>903</i>	<i>375</i>	<i>310</i>	<i>69</i>	<i>3,586</i>
	No.	No.	No.	No.	No.	No.	No.	No.
Contributors at end of year—								
Males	179	94	100	76	57	79	51	636
Females	5	..	..	..	2	1	3	11
Pensioners at end of year—								
Ex-members	70	34	36	19	10	20	17	206
Widows	28	23	33	16	15	24	5	144

(a) Includes lump-sum payments.

Coal and oil-shale mine workers' superannuation schemes

In all States except South Australia superannuation schemes have been established for coal and oil-shale mine workers. These schemes are operated through funds to which mine workers, mine owners and the State Governments contribute.

COAL AND OIL-SHALE MINE WORKERS SUPERANNUATION SCHEMES(a)
1960-61 TO 1963-64

	1960-61	1961-62	1962-63	1963-64
	\$'000	\$'000	\$'000	\$'000
Income—				
Contributions—				
Mine workers	814	746	766	777
Mine owners	3,590	3,216	3,364	3,412
State Governments	364	358	356	344
Interest, dividends, rent	732	822	874	920
<i>Total income</i>	<i>5,500</i>	<i>5,142</i>	<i>5,360</i>	<i>5,453</i>
Expenditure—				
Pension payments	4,182	4,262	4,432	4,633
Lump sum payments	36	66	6	23
Refunds of contributions	2	2	6	
Administration	104	114	114	118
<i>Total expenditure</i>	<i>4,324</i>	<i>4,444</i>	<i>4,558</i>	<i>4,773</i>
Assets at end of year—				
Deposits with Treasury	294	160	208	272
Other deposits and cash	86	1,044	108	37
Commonwealth Government securities	582	128	118	118
Local government and semi-governmental securities	14,838	15,216	16,890	17,602
Other assets	386	352	380	485
<i>Total assets</i>	<i>16,186</i>	<i>16,900</i>	<i>17,704</i>	<i>18,514</i>
<i>Less Sundry creditors, statutory reserve funds, etc.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>6,850</i>
<i>Accumulated funds</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>11,664</i>
	No.	No.	No.	No.
Contributors at end of year—				
Males	17,450	16,182	15,700	15,325
Females	20	15	15	19
Pensioners at end of year—				
Former employees—				
Males	6,699	6,598	6,693	6,643
Females	3	2	2	2
Widows	3,921	4,186	4,216	4,375
Children	95	34	34	56

(a) Operating in all States except South Australia.

Private superannuation, pension and retiring allowance schemes

Details of the results of a survey of private superannuation, pension and retiring allowance schemes conducted by private businesses for the benefit of their employees during the year ended June 1963 or the accounting period nearest that year and of similar surveys conducted in 1960-61 and 1961-62 are published in Year Book No. 51 (pages 898-900).

PROBATES AND LETTERS OF ADMINISTRATION

The following table gives some particulars of the number and value of estates of deceased persons in each State for the latest year for which information is available. Owing to differences in legislation in the various States the figures are not entirely comparable.

PROBATES AND LETTERS OF ADMINISTRATION: STATES

	New South Wales 1964-65 (a)	Victoria 1964	Queens- land 1963-64	South Australia 1964	Western Australia 1964-65	Tas- mania 1965 (b)
Estates no.	26,160	17,773	16,118	4,415	4,349	1,685
Gross value . . . \$'000	n.a.	242,552	102,875	68,470	n.a.	26,414
Net value . . . \$'000	365,344	220,503	95,317	62,624	38,518	24,212

(a) Total estates of deceased persons assessed for death duty. (b) Estates dealt with by the Taxation Department.

CHAPTER 21

PUBLIC FINANCE

The subject of public finance is dealt with in this chapter under the two major divisions of Commonwealth Finance and State Finance. The close financial relations between the Commonwealth and States, however, particularly since the Financial Agreement has been in operation, demand also a combination of these two divisions under the heading of Commonwealth and State Finance. Under the Financial Agreement the Commonwealth assumed the liability to bondholders for the States' Securities existing at the date of the Agreement and now arranges for all borrowings for and on behalf of the Commonwealth or any State and for all conversions, renewals, redemptions and consolidations of such securities. In view of this it is convenient to deal with the Commonwealth and State Government Securities on Issue in a separate division of this chapter (page 799). The subject of income taxes is also dealt with in a separate division at the end of this chapter (page 814).

For further detailed information on the subjects covered by this chapter see the annual bulletins *Commonwealth Finance*; *State, Territory and Local Government Authorities' Finance and Government Securities*; and *Commonwealth Taxation Assessments*. Current information in summarized form is contained in the *Quarterly Summary of Australian Statistics*, the *Monthly Review of Business Statistics* and the *Digest of Current Economic Statistics*.

COMMONWEALTH FINANCE

Financial provisions of the Constitution

The main provisions of the Constitution relating to the initiation and development of the financial system of the Commonwealth are contained in Sections 81 to 105A of the Commonwealth Constitution (see pages 16–19 of this Year Book). Two other sections which have a most important bearing on questions of Commonwealth finance are Sections 69 and 51.

Section 69 provides for the transfer from the States to the Commonwealth of certain specified departments, and Section 51, in outlining the powers of the Commonwealth Parliament, implies the transfer or creation of other departments. Sections 87 and 96 deal with the financial relations between the Commonwealth and the States. These matters have been treated in previous issues of the Year Book, and on pages 763–71 of this issue a summary is given of the present provisions for Commonwealth financial assistance to the States.

The *Audit Act* 1901–1961 lays down the procedure which must be followed in accounting for the receipt and disbursement of public funds. The general administration of Commonwealth finances is the responsibility of the Treasurer of the Commonwealth.

Commonwealth Public Account

Nature of account

The Commonwealth Public Account includes the Consolidated Revenue Fund, the Trust Fund and the Loan Fund. Ordinary revenues from taxation and other sources are paid into the Consolidated Revenue Fund, from which the main expenditures are for defence, war and repatriation services, social services, payments to the States, Commonwealth business undertakings (mostly postal, telephone and telegraph), and administration. The Trust Fund covers special transactions outside the ordinary operations of departmental expenditures, such as pension funds and moneys held for expenditure by the Commonwealth at some future time. The Loan Fund receives its funds from the sale of Commonwealth securities, and expenditures from the Fund are made in accordance with the purpose of issue of each loan. The main disbursements from the Loan Fund are to the States, either by way of distribution of the proceeds of loans raised by the Commonwealth on their behalf or in accordance with the provisions of the Commonwealth and State Housing Agreements, and the remaining disbursements are for Commonwealth purposes such as defence or war service land settlement.

Summary of receipts and expenditure

A summary of transactions on the Commonwealth Public Account for 1964–65 and the four preceding years is given in the table which follows. The transactions are recorded on a cash basis.

COMMONWEALTH PUBLIC ACCOUNT: SUMMARY OF TRANSACTIONS
1960-61 TO 1964-65

(\$ million)

	1960-61	1961-62	1962-63	1963-64 (b)	1964-65
Expenditure—					
Consolidated Revenue Fund(a)	2,991.4	3,239.2	3,318.1	3,743.7	4,195.4
Loan Fund—					
Defence services	..	46.9	132.1	77.4	..
State works and housing programmes	451.3	489.2	498.2	524.0	559.4
War service land settlement	4.1	3.2	1.2	8.5	7.2
Mount Isa Railway Agreement	..	7.5	11.9	12.1	3.0
Snowy Mountains Hydro-electric Authority	..	..	26.2	23.4	19.6
Total expenditure	3,446.8	3,786.0	3,987.7	4,389.1	4,784.6
Receipts—					
Consolidated Revenue Fund	3,276.6	3,283.1	3,370.8	3,809.4	4,418.2
National Debt Sinking Fund	147.7	153.3	163.6	179.0	192.6
Net movement in cash balances of other trust funds	-23.4	4.6	30.9	4.9	17.1
Total receipts	3,400.8	3,441.0	3,565.3	3,993.3	4,627.9
Excess of expenditure over receipts (or net call on borrowings)	45.9	345.0	422.4	395.8	156.7
Borrowings, etc.—					
Loan proceeds—					
Australia(c)	245.0	463.1	518.7	578.4	501.7
Overseas(d)—					
Public loans	109.5	58.8	110.9	49.1	21.9
Drawings on international bank loans	..	..	28.4	24.2	21.2
Total loan proceeds	354.4	521.9	658.1	651.8	544.8
Less redemptions, etc.—					
Australia(c)	194.8	172.0	165.1	153.4	270.3
Overseas(d)	82.1	58.9	38.5	47.3	80.1
Total redemptions	276.9	230.9	203.6	200.7	350.4
Net loan proceeds	77.5	290.9	454.5	451.1	194.4
Net movement in temporary borrowings and cash balances—					
Treasury notes	..	..	139.0	13.6	-72.1
Treasury bills and debentures	-30.0	44.0	-170.0	-68.0	(e) 38.0
Cash balances	-1.6	10.0	-1.1	-0.9	-3.6
Total borrowings, etc.	45.9	345.0	422.4	395.8	156.7

(a) Excludes payments to Loan Consolidation and Investment Reserve: 1960-61, \$285.1m; 1961-62, \$44.3m; 1962-63, \$52.8m; 1963-64, \$29.8m; and 1964-65, \$222.7m. (b) Comparisons between the figures for 1962-63 and 1963-64 are affected by accounting changes which had the effect of increasing both expenditures and receipts by \$44.0m. In particular, receipts of business undertakings were increased by \$2.6m and other revenue by \$41.5m. On the expenditure side, defence services were increased by \$13.0m, war service land settlement by \$9.2m, departmental running expenses, etc., by \$18.2m, repatriation services by \$1.0m, and expenditure by business undertakings by \$2.6m. The revised accounting arrangements also involved minor changes as between certain items of expenditure, including most of those previously mentioned. (c) Redemptions of special bonds, previously deducted from proceeds of special bonds, are now included under redemptions. (d) Oversea 'refinancing' operations, previously treated as conversions, are now treated as adding to both loan proceeds and redemptions where they involved receipts into Loan Fund and expenditures from Loan Fund. (e) In 1964-65 \$100m Treasury bills were funded so that there was a net reduction of \$62m in the Treasury bill issue during that year.

Minus sign (-) denotes decrease.

All Commonwealth funds: summary of receipts and expenditure

The following table represents a reclassification of Commonwealth Government receipts and expenditure in a national accounts form. It includes the Commonwealth Government components (with slight re-arrangement) of Tables 57 and 60 in *Australian National Accounts, National Income and Expenditure 1948-49 to 1964-65*. Advances to semi-governmental business undertakings are included in 'Other advances', but grants to other semi-governmental bodies (National Capital Development Commission, Australian National University, Stevedoring Industry Authority, etc.) are classified according to the final expenditure of the authority concerned.

ALL COMMONWEALTH FUNDS: RECEIPTS AND EXPENDITURE, 1960-61 TO 1964-65

(\$ million)

	1960-61	1961-62	1962-63	1963-64	1964-65
Expenditure—					
Current expenditure on goods and services	659	720	761	850	1,011
Capital expenditure on new assets and stocks	152	172	207	224	280
Purchases of existing assets	8	5	4	4	4
Subsidies	63	83	71	101	86
Interest	69	67	66	75	81
Cash benefits to persons	822	902	938	1,030	1,082
Grants towards private capital expenditure	7	10	9	8	26
Oversea grants	46	52	65	75	95
Grants to States	714	800	852	896	958
Advances to States	93	127	130	136	142
Other advances	157	164	161	192	209
Total expenditure	2,790	3,102	3,264	3,591	3,974
Receipts—					
Taxation	2,851	2,836	2,882	3,220	3,788
Interest, rent and dividends	68	82	90	92	103
Net revenue of business undertakings	74	76	111	123	148
Fees and charges for goods and services	36	38	40	52	55
Sales of existing assets	4	6	8	12	17
Repayments of advances to States	18	18	21	21	22
Repayments of other advances	26	24	32	34	37
Other net receipts(a)	-287	22	80	37	-196
Total receipts	2,790	3,102	3,264	3,591	3,974

(a) Includes borrowing on treasury bills and Commonwealth bonds and net decrease in cash balances.
Minus sign (—) denotes decrease.

All Commonwealth funds: expenditure, by function

In the following table particulars of expenditure shown in the previous table have been reclassified to a 'net' basis by taking account of the relevant items shown as receipts in that table, e.g., fees and charges for goods and services, sales of existing assets, etc., and the resulting totals have been classified by function.

ALL COMMONWEALTH FUNDS: TOTAL NET EXPENDITURE, BY FUNCTION
1960-61 TO 1964-65
(\$ million)

	1960-61	1961-62	1962-63	1963-64	1964-65
Net current expenditure—					
Law, order and public safety	4	4	4	5	6
Education	27	33	38	43	61
Cultural and recreational facilities	2	3	3	4	5
Public health	154	174	188	203	221
Welfare	533	587	603	665	696
War and defence	365	400	421	451	551
Repatriation	193	207	218	236	242
Development of resources and assist- ance to industry	85	131	125	162	166
Transport and communication	29	26	28	30	33
Legislature and general administration	65	73	74	88	101
External affairs	23	28	27	30	41
Immigration	23	22	24	28	36
Regulation of trade and industry	12	12	14	16	18
Housing	3	2	2	2	15
Other	36	34	35	48	55
Not allocated to function	647	698	735	776	797
<i>Total net current expenditure</i>	<i>2,201</i>	<i>2,434</i>	<i>2,539</i>	<i>2,789</i>	<i>3,044</i>
Net capital expenditure—					
Education	14	19	19	21	42
Cultural and recreational facilities	4	8	12	9	12
Public health	4	5	6	5	7
War and defence	21	-2	-3	45	17
Development of resources and assist- ance to industry	18	14	7	12	18
Transport and communication—					
Post office	84	94	123	128	165
Civil aviation	22	26	4	3	42
Roads	97	110	122	131	147
Other	12	24	34	35	31
Power, fuel and light	38	32	45	48	45
Housing	130	157	155	146	154
Other	13	36	2	28	19
Not allocated to function	18	19	51	19	39
<i>Total net capital expenditure</i>	<i>475</i>	<i>542</i>	<i>577</i>	<i>631</i>	<i>738</i>

This table classifies by function the expenditure on goods and services (reclassified to a net basis) shown in the table on page 758.

**ALL COMMONWEALTH FUNDS: NET EXPENDITURE ON GOODS AND SERVICES
BY FUNCTION(a), 1960-61 TO 1964-65**

(\$ million)

	1960-61	1961-62	1962-63	1963-64	1964-65
Net current expenditure—					
Law, order and public safety . . .	4	4	5	5	6
Education	9	11	12	14	19
Cultural and recreational facilities . .	2	3	3	4	5
Public health	11	11	13	13	14
Welfare	11	12	13	14	15
War and defence	363	398	413	447	540
Repatriation	41	41	49	53	56
Development of resources and assist- ance to industry	49	59	65	75	95
Transport and communication	19	19	22	24	27
Legislature and general administration	65	73	73	84	100
External affairs	11	15	17	22	23
Immigration	21	19	21	26	33
Regulation of trade and industry . .	5	4	7	8	9
Housing	2	2	3	3	4
Other	3	2	1	1	4
Not allocated to function	7	6	4	4	7
Total net current expenditure . . .	623	682	721	797	956
Net capital expenditure (new assets and stocks—)					
Education	5	7	6	8	9
Cultural and recreational facilities . .	3	8	12	9	12
Public health	2	2	2	3	3
Development of resources and assistance to industry	10	8	7	8	13
Transport and communication—					
Post office	84	93	122	128	164
Civil aviation	8	8	8	11	16
Roads	5	8	10	9	9
Other	3	6	6	9	8
Housing	9	9	10	9	11
Other	12	11	13	20	21
Not allocated to function	11	12	12	9	14
Total net capital expenditure . . .	152	172	207	224	280

(a) This table includes the Commonwealth Government component of Tables 66 and 75 in *Australian National Accounts, National Income and Expenditure 1948-49 to 1964-65* together with net expenditure on stocks.

Main components of Commonwealth expenditure

The tables on pages 761-71 supply details of some of the main components of total expenditure of the Commonwealth Government.

Subsidies

The following table shows details of Commonwealth expenditure from all funds on assistance to primary producers, subsidies and bounties for the years 1960-61 to 1964-65. Expenditure on special relief such as drought, frost, flood, and bush fire, etc., is not included here (included as cash benefits to persons in tables, pages 762-3), nor is expenditure from the proceeds of certain taxes on primary products and profits from marketing schemes, which have been paid to trust

funds for the purpose of price or other stabilization schemes or for distribution to producers (see page 781). Payments to the States for cattle tick control, dairy industry extension and agricultural advisory services are not included under this heading, but included under the heading Grants to the States (see pages 764-6). Further information relating to assistance to primary producers is given in the chapter Rural Industry. Details of price stabilization subsidies and of various forms of assistance to primary producers for earlier years are given on pages 414 and 1014-15, respectively, of Year Book No. 38.

ALL COMMONWEALTH FUNDS: EXPENDITURE ON SUBSIDIES
1960-61 TO 1964-65

(\$'000)

Type of subsidy	1960-61	1961-62	1962-63	1963-64	1964-65
Development of resources and assistance to industry—					
Dairy industry	27,000	27,000	27,000	27,000	27,000
Wheat prices stabilization	13,064	33,816	14,576	22,634	1,892
Phosphate fertilizers . . . . .	..	..	..	18,806	22,880
Oil search	2,798	5,086	10,000	9,434	8,838
Copper	810	1,374	1,398	1,390	300
Gold mining industry	1,398	1,318	1,582	1,496	1,860
Pyrates	172	794	796	1,228	924
Cotton	748	630	574	946	1,916
Processed milk products . . . . .	..	..	568	800	864
Sulphate of ammonia . . . . .	..	..	360	318	526
Vinyl resin . . . . .	..	..	..	228	364
Copper and brass strip . . . . .	..	..	36	124	154
Northern Territory—					
Railway freight	68	72	80	92	90
Transport of stud stock	40	34	30	48	40
Ship construction	6,000	3,106	3,600	4,436	5,538
Sulphuric acid	2,706	2,018	2,188	2,316	1,822
Tractor	1,882	1,754	1,926	2,014	2,754
Cellulose acetate flake	254	138	202	218	134
Rayon yarns	144	138	270	..	..
Flax fibre	12	24	36	4	..
Transport and communication—					
Air services	1,000	1,000	1,000	1,000	1,000
Coastal shipping service—					
King Island and Bass Straits Islands . . . . .	..	..	..	24	66
Tasmania . . . . .	..	26	..	..	..
Northern Territory	4	8	8	8	14
Northern Territory airmail service	46	66	74	116	118
South American shipping service . . . . .	..	100	222	304	278
Regulation of trade and industry—					
Stevedoring industry	4,166	4,346	4,200	5,742	6,094
Other	204	230	304	300	326
Total	62,516	83,078	71,030	101,026	85,792

Cash benefits to persons

Particulars of cash benefits paid to persons in each State and Territory during 1964-65 are shown in the next table and the total payments during the years 1960-61 to 1964-65 are shown in the table following.

**ALL COMMONWEALTH FUNDS: CASH BENEFITS TO PERSONS
STATES AND TERRITORIES, 1964-65**

(\$'000)

Type of benefit	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Abroad	Total
Education—										
Commonwealth Scholarship Scheme—										
Secondary	814	1,176	592	376	296	130	..	..	..	3,382
Technical	26	106	42	26	10	4	..	..	..	212
University	3,572	2,552	1,382	842	616	176	..	50	..	9,188
<i>Total, education</i>	<i>4,412</i>	<i>3,834</i>	<i>2,016</i>	<i>1,244</i>	<i>922</i>	<i>310</i>	<i>..</i>	<i>50</i>	<i>..</i>	<i>12,782</i>
Health—										
Hospital benefits	24,252	13,267	8,994	5,160	4,987	1,811	110	210	..	58,791
Medical benefits	14,237	8,961	3,749	4,274	3,056	1,000	..	..	..	35,277
Medical benefits for pensioners	3,771	2,413	1,299	898	660	256	..	23	..	9,320
Milk for school children	2,876	2,066	1,211	757	637	380	72	60	..	8,059
Pharmaceutical benefits	22,492	18,556	8,800	5,110	3,824	1,706	..	151	..	60,638
Pharmaceutical benefits for pensioners	9,094	5,165	3,270	1,987	1,470	578	..	..	..	21,564
Tuberculosis campaign	3,650	2,700	2,036	638	742	361	..	17	..	10,146
Miscellaneous	148	162	345	19	30	67	72	2,016	..	2,859
<i>Total, health</i>	<i>80,520</i>	<i>53,288</i>	<i>29,704</i>	<i>18,843</i>	<i>15,406</i>	<i>6,162</i>	<i>254</i>	<i>2,477</i>	<i>..</i>	<i>206,654</i>
Welfare—										
Age and invalid pensions	167,725	107,408	68,119	38,509	29,413	13,184	1,009	778	452	426,597
Child endowment	59,897	48,018	26,153	16,563	13,406	6,306	1,005	1,430	52	172,830
Commonwealth Rehabilitation Service	494	432	231	213	174	60	..	..	..	1,604
Funeral benefits	349	224	129	76	59	26	..	2	..	866
Maternity allowances	2,569	2,058	1,093	666	534	251	53	64	6	7,294
Tuberculosis campaign—allowances	525	297	362	105	80	76	12	2	..	1,458
Unemployment benefits	2,227	1,160	1,587	390	842	583	3	15	..	6,807
Sickness benefits	2,681	1,645	948	475	512	201	12	23	..	6,498
Special benefits	349	546	171	66	46	52	2	2	..	1,235
Widows' pensions	17,736	11,764	7,594	4,452	3,463	1,699	133	147	56	47,044
Other	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	1,022
<i>Total, welfare</i>	<i>254,552</i>	<i>173,552</i>	<i>106,387</i>	<i>61,515</i>	<i>48,529</i>	<i>22,438</i>	<i>2,229</i>	<i>2,463</i>	<i>566</i>	<i>673,256</i>
Repatriation—										
War and service pensions and allowances	b 61,458	51,110	27,386	c 16,006	14,768	7,118	(d)	(e)	1,470	179,313
Other	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	4,012
Immigration—										
Maintenance of migrant families	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	..	3,752
Regulation of trade and industry—										
Coal mining industry—Long service leave	732	..	206	..	64	20	..	..	..	1,020
Stevedoring industry	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)	..	1,614
Housing—										
Commonwealth-State Housing Agreement—										
Contribution to rental losses . . . . .	..	..	130	..	..	..	..	..	..	130
<i>Total</i>	<i>401,674</i>	<i>281,784</i>	<i>165,829</i>	<i>97,608</i>	<i>79,689</i>	<i>36,048</i>	<i>2,483</i>	<i>4,990</i>	<i>2,036</i>	<i>f 1,082,533</i>

(a) Not allocable. (b) Includes Australian Capital Territory. (c) Includes Northern Territory. (d) Included in South Australia. (e) Included in New South Wales. (f) Includes items not allocable; see footnote (a).

**ALL COMMONWEALTH FUNDS: CASH BENEFITS TO PERSONS
1960-61 TO 1964-65**

(\$'000)

Type of benefit	1960-61	1961-62	1962-63	1963-64	1964-65
Education—					
Commonwealth Scholarship Scheme—					3,382
Secondary . . . . .	..	..	..	..	212
Technical . . . . .	..	..	..	..	9,188
University	4,980	5,786	7,102	7,768	
<i>Total, education</i>	<i>4,980</i>	<i>5,786</i>	<i>7,102</i>	<i>7,768</i>	<i>12,782</i>
Health—					
Hospital benefits	41,336	44,394	47,326	56,216	58,791
Medical benefits	19,952	21,833	23,474	24,848	35,277
Medical benefits for pensioners	8,401	8,796	9,146	9,531	9,320
Milk for school children	7,120	7,483	7,454	7,775	8,059
Pharmaceutical benefits	41,086	52,185	57,044	58,237	60,638
Pharmaceutical benefits for pensioners	14,677	18,195	19,867	20,602	21,564
Tuberculosis campaign	8,358	8,654	9,738	10,463	10,146
Miscellaneous	2,092	1,696	1,530	1,786	2,859
<i>Total, health</i>	<i>143,018</i>	<i>163,236</i>	<i>175,578</i>	<i>189,460</i>	<i>206,654</i>
Welfare—					
Age and invalid pensions	315,852	360,489	375,507	399,880	426,597
Child endowment	148,605	132,755	135,421	168,758	172,830
Commonwealth Rehabilitation Service	1,387	1,447	1,395	1,489	1,604
Funeral benefits	735	752	802	812	866
Maternity allowances	7,796	7,817	7,563	7,457	7,294
Tuberculosis campaign—Allowances	1,893	1,746	1,607	1,593	1,458
Unemployment benefits, sickness and special benefits	14,280	31,810	29,315	21,625	14,540
Widows' pensions	26,937	30,189	31,353	41,569	47,044
Other	1,012	958	430	470	1,022
<i>Total, welfare</i>	<i>518,496</i>	<i>567,962</i>	<i>583,394</i>	<i>643,654</i>	<i>673,256</i>
Repatriation—					
War and service pensions and allowances	147,345	154,540	162,693	179,051	179,313
Other	2,382	2,768	3,112	4,148	4,012
<i>Total, repatriation</i>	<i>149,728</i>	<i>157,308</i>	<i>165,806</i>	<i>183,198</i>	<i>183,324</i>
Immigration—					
Maintenance of migrant families	2,118	3,323	3,159	3,472	3,752
Regulation of trade and industry—					
Coal mining industry—Long service leave	918	1,290	954	910	1,020
Stevedoring industry	2,300	2,994	1,868	1,674	1,614
<i>Total, regulation of trade and industry</i>	<i>3,218</i>	<i>4,284</i>	<i>2,822</i>	<i>2,584</i>	<i>2,634</i>
Housing—					
Commonwealth-State Housing Agreement—					
Contribution to rental losses	705	130	37	45	130
<i>Total</i>	<i>822,263</i>	<i>902,029</i>	<i>937,898</i>	<i>1,030,181</i>	<i>1,082,533</i>

Further information concerning items in the two preceding tables is given in the appropriate chapters of this Year Book.

Payments to or for the States

An outline of the provisions of the Constitution providing for the Commonwealth to make payments to the States, and of the systems which followed, is given in earlier issues of the Year Book (see No. 37, pages 633 to 638). A distinction is made in this Year Book between (a) direct Commonwealth financial assistance to the States in the form of grants to provide revenue for general and specific purposes and (b) those forms of assistance for developmental and other specific purposes which include, in part or in total, payments made in the form of repayable advances. Some information about the more important or most recent of these forms of financial assistance is given on pages 769-71, but for greater detail on these and other forms of financial assistance see Year Book No. 51, pages 921-4 and earlier issues. Further information is available also in the chapters of this issue dealing with the respective subjects.

Grants. The following three tables show particulars of the amounts paid to the States as grants for the purposes referred to in (a) above.

ALL COMMONWEALTH FUNDS: GRANTS TO THE STATES, BY FUNCTION, 1964-65
(\$'000)

Function	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
Current purposes—							
Education—							
Universities	11,664	7,098	3,512	3,266	2,472	930	28,942
Welfare—							
Housekeeper services	12	8	4	..	..	..	24
Development of resources and assistance to industry—							
Cattle tick control	414	..	..	..	..	..	414
Expansion of agricultural advisory services	150	132	114	54	54	36	540
Dairy industry extension services	178	178	180	50	48	38	672
Investigation of water resources	70	80	136	60	84	..	430
Total, development, etc. . .	812	390	430	164	186	74	2,056
Not allocated to function—							
Financial assistance grants . .	230,536	171,750	101,112	78,156	70,498	29,298	681,348
Special grants . . . .	..	..	..	..	17,120	14,600	31,720
Interest and exchange	5,834	4,254	2,192	1,408	948	534	15,170
Sinking fund and redemption .	5,662	3,938	2,108	2,192	1,616	1,130	16,646
Total, not allocated	242,032	179,942	105,412	81,756	90,182	45,562	744,884
<i>Total, current purposes</i> . . .	254,520	187,438	109,358	85,186	92,840	46,566	775,906
Capital purposes—							
Education—							
Secondary	2,710	2,046	1,048	676	518	242	7,238
Technical	3,744	2,826	1,448	934	714	334	10,000
Universities	4,506	3,288	1,784	1,814	528	412	12,332
Total, education	10,960	8,160	4,280	3,424	1,760	988	29,570
Public health—							
Mental institutions	660	712	224	264	446	198	2,504
Tuberculosis hospitals—							
Capital	136	308	222	12	12	6	696
Total, public health	796	1,020	446	276	458	204	3,200
Development of resources and assistance to industry—							
Western Australia—Northern development . . . .	..	..	..	..	2,018	..	2,018
Flood mitigation	1,300	..	..	..	..	..	1,300
Investigation of water resources	64	10	120	12	52	..	258
Total, development, etc. . .	1,364	10	120	12	2,070	..	3,576
Transport and communication—							
Commonwealth aid roads . . .	36,346	25,576	23,670	14,902	23,006	6,500	130,000
Railway projects . . . .	..	..	..	3,158	4,228	..	7,386
Cattle roads . . . .	..	..	2,300	..	1,500	..	3,800
Replacement of Derby jetty . .	..	..	..	..	150	..	150
Gordon River road . . . .	..	..	..	..	..	1,094	1,094
Coal loading works . . . .	..	..	120	..	..	..	120
Total, transport, etc. . . .	36,346	25,576	26,090	18,060	28,884	7,594	142,550
Other—							
Exmouth township . . . .	..	..	..	..	380	..	380
<i>Total, capital purposes</i> . . .	49,466	34,766	30,936	21,772	33,552	8,786	179,276
Grand total	303,986	222,204	140,294	106,958	126,392	55,352	955,182

**ALL COMMONWEALTH FUNDS: TOTAL GRANTS TO THE STATES
BY FUNCTION, 1960-61 TO 1964-65**
(\$'000)

Function	1960-61	1961-62	1962-63	1963-64	1964-65
Current purposes—					
Education—Universities	13,354	16,236	18,546	21,080	28,942
Welfare—Housekeeper services	28	28	28	28	24
Development of resources and assistance to industry—					
Cattle tick control	1,082	660	536	518	414
Expansion of agricultural advisory services	588	572	576	580	540
Dairy industry extension services	492	496	490	682	672
Investigation of water resources . . . . .	..	..	..	..	430
Tobacco industry extension services . . . . .	..	..	48	48	..
Total, development, etc..	2,162	1,728	1,650	1,828	2,056
Not allocated to function—					
Financial assistance grants	539,988	584,280	608,640	635,968	681,348
Special grants	17,236	22,462	22,502	22,900	31,720
Interest and exchange	15,170	15,170	15,170	15,170	15,170
Sinking fund and redemption	12,548	13,478	14,496	15,690	16,646
Additional assistance grants . . . . .	..	20,000	35,000	40,000	..
Total, not allocated	584,942	655,390	695,808	729,728	744,884
Total, current purposes	600,486	673,382	716,032	752,664	775,906
Capital purposes—					
Education—					
Secondary . . . . .	..	..	..	..	7,238
Technical . . . . .	..	..	..	..	10,000
Universities	9,100	12,086	12,872	12,780	12,332
Total, education	9,100	12,086	12,872	12,780	29,570
Public health—					
Mental institutions	1,454	1,648	1,590	1,594	2,504
Tuberculosis hospitals—Capital	820	774	984	598	696
Total, public health	2,274	2,422	2,574	2,192	3,200
Development of resources and assistance to industry—					
Western Australia—Northern development	2,416	3,410	2,864	1,816	2,018
Flood mitigation . . . . .	..	..	..	400	1,300
Cattle dip chemicals . . . . .	..	..	106	..	..
Western Australia waterworks	1,032	122	..	..	..
Encouragement of meat production	14	10	2	..	..
Investigation of water resources . . . . .	..	..	..	..	258
Total, development, etc..	3,462	3,542	2,972	2,216	3,576
Transport and communication—					
Commonwealth aid roads	92,192	100,012	108,000	116,000	130,000
Railway projects	6,602	5,600	5,678	5,182	7,386
Cattle roads . . . . .	..	2,300	3,400	3,596	3,800
Replacement of Derby jetty . . . . .	..	..	300	350	150
Gordon River road . . . . .	..	..	..	270	1,094
Coal loading works . . . . .	..	..	..	80	120
Total, transport, etc.	98,794	107,912	117,378	125,478	142,550
Other—					
Exmouth township . . . . .	..	..	..	..	380
Total, capital purposes	113,630	125,962	135,796	142,666	179,276
Grand total	714,116	799,344	851,828	895,330	955,182

ALL COMMONWEALTH FUNDS: GRANTS TO THE STATES TO 30 JUNE 1965(a)

(\$ million)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
Section 87 of Constitution, 1900-01 to 1909-10	55.5	40.0	17.8	12.4	17.5	5.2	148.4
Surplus Revenue Acts, 1910-11 to 1926-27	83.0	62.3	30.3	19.8	19.5	8.7	223.7
Financial Agreements, 1927-28 to 1964-65	302.5	209.9	111.6	81.7	58.4	31.2	796.1
Special grants(b)	..	..	..	156.2	268.1	135.7	560.0
Income tax reimbursement grants, 1942-43 to 1945-46(c)	110.8	48.7	44.4	18.1	19.0	6.8	247.8
Income tax reimbursement special grants, 1945-46 to 1946-47(c)	..	..	..	3.3	1.8	0.2	5.4
Entertainments tax reimbursement grants, 1942-43 to 1945-46(d)	1.2	2.8	..	0.7	0.7	0.3	5.7
Tax reimbursement grants, 1947-48 to 1958-59(e)	1,051.3	672.1	431.9	240.1	216.9	91.3	2,703.7
Additional tax reimbursement grants(f)	4.1	2.3	1.6	0.9	0.8	0.3	10.0
Special financial assistance(g)	160.8	110.6	62.8	34.7	31.2	13.6	413.7
Additional assistance(h)	4.0	2.1	2.3	0.7	0.6	0.3	10.0
Non-recurring grants from excess receipts, 1934-35 to 1936-37	2.4	1.7	0.9	0.5	0.4	0.2	6.0
Financial assistance grants(i)	1,202.3	885.5	527.1	403.7	365.6	155.0	3,539.2
Additional financial assistance(j)	26.6	21.3	20.0	11.5	7.8	7.8	95.0
Special assistance(k)	30.6	14.5	18.3	7.1	35.2	3.2	108.9
Grants for road construction, 1922-23 to 1964-65(l)	337.0	228.4	226.2	136.9	224.0	60.7	1,213.3
Payments to Commonwealth Aid Roads (Supplementary)	..	..	..	..	..	..	10.0
Trust Account(m)	..	..	..	..	..	..	..
Tuberculosis Act 1948—reimbursement of capital expenditure	10.6	3.8	11.1	1.5	4.6	0.7	32.3
Mental institutions—contribution to capital expenditure	8.0	8.2	1.7	1.7	1.4	0.9	19.9
Encouragement of meat production	..	..	2.7	..	1.7	..	4.3
Grants to universities	83.9	54.6	24.6	23.0	16.4	9.1	211.7
Other education	6.5	4.9	2.5	1.6	1.2	0.6	17.2
Railway projects(n)	0.2	22.1	..	14.3	9.1	..	45.8
Total	3,481.3	2,396.0	1,537.7	1,170.3	1,302.1	531.8	10,428.1

(a) Includes non-recurring grants from excess receipts, but excludes payments on account of the Morgan-Whyalla Waterworks, amounts provided for relief of wheat-growers and other primary producers, and other payments for medical research, social services, etc. (b) Under various States Grants Acts. (c) Under States Grants (Income Tax Reimbursement) Act 1942. (d) Under States Grants (Entertainments Tax Reimbursement) Act 1942. (e) Under States Grants (Tax Reimbursement) Act 1946-1948. (f) Under States Grants (Additional Tax Reimbursement) Act 1950. (g) Under States Grants (Special Financial Assistance) Acts 1951 and 1952. (h) Under States Grants (Additional Assistance) Act 1958. (i) Under States Grants Acts 1959 and 1962. (j) Under States Grants (Additional Assistance) Act 1962. (k) Includes payments for unemployment relief, metalliferous mining, forestry, local public works, grants for price control reimbursement, coal strike emergency grant, grants for imported houses, Port Augusta-Port Pirie railway, Western Australian waterworks, cattle tick control, dairy industry extension, agricultural advisory services, cattle roads, coal-loading works, eradication of house borers, brigalow lands, cattle dip chemicals, tobacco industry extension services, Exmouth township, etc. (l) Under Main Roads Development, Federal Aid Roads, Federal Aid Roads and Works, and Commonwealth Aid Roads Acts. (m) Expenditure not allocable between States. (n) Under the Railway Standardization (South Australia) Agreement Act 1949, the Railway Standardization (New South Wales and Victoria) Agreement Act 1958, the Railway Agreement (Queensland) Act 1961, the Railway Equipment Agreement (South Australia) Act 1961, and the Railway Agreement (Western Australia) Act 1961.

Repayable advances. The next three tables show particulars of the amounts paid to the States as repayable advances for the several purposes referred to in (b) on page 763.

ALL COMMONWEALTH FUNDS: ADVANCES TO THE STATES, BY FUNCTION

1964-65

(\$'000)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
Development of resources and assistance to industry—							
Brigalow lands development	..	..	1,400	..	..	..	1,400
Less Repayments . . .	..	..	1,400	..	..	..	1,400
Blowering Reservoir . . .	3,492	..	..	..	..	..	3,492
Less Repayments . . .	3,492	..	..	..	..	..	3,492
Western Australia—Northern development . . .	..	..	..	..	550	..	550
Less Repayments . . .	..	..	..	..	550	..	550
Chowilla Reservoir . . .	156	..	..	..	..	..	156
Less Repayments . . .	156	..	..	..	..	..	156
Agricultural re-establishment loans . . .	.. 90	.. 32	.. 4	.. 32	.. 52	.. 18	.. 228
Less Repayments . . .	-90	-32	-4	-32	-52	-18	-228
War service land settlement . . .	.. 106	.. 112	.. 4	2,284	3,370	1,580	7,234
Less Repayments . . .	-106	-112	-4	3,792	5,146	2,202	11,362
				-1,508	-1,776	-622	-4,128
Transport and communication—							
Railway projects . . .	.. 96	.. 96	3,016	1,334	6,038	..	10,388
Less Repayments . . .	-96	-96	506	84	42	..	824
			2,510	1,250	5,996	..	9,564
Cattle roads . . .	..	..	2,300	..	..	..	2,300
Less Repayments . . .	..	..	2,300	..	..	..	2,300
Replacement of Derby jetty . . .	..	..	..	..	150	..	150
Less Repayments . . .	..	..	..	..	54	..	54
					96	..	96
Coal loading works . . .	806	..	120	..	..	..	926
Less Repayments . . .	168	..	8	..	..	..	176
	638	..	112	..	..	..	750
Housing . . .	38,132	34,360	8,232	20,500	7,492	6,400	115,116
Less Repayments . . .	3,370	3,056	904	910	862	246	9,348
	34,762	31,304	7,328	19,590	6,630	6,154	105,768
Not allocated to function—							
Other . . .	412	148	78	150	-32	6	762
Less Repayments . . .	412	148	78	150	-32	6	762
Total gross advances . . .	42,998	34,508	15,146	24,268	17,568	7,986	142,474
Less Repayments . . .	3,830	3,296	1,426	4,818	6,156	2,466	21,992
Total net advances . . .	39,168	31,212	13,720	19,450	11,412	5,520	120,482

Minus sign (—) denotes excess of repayments.

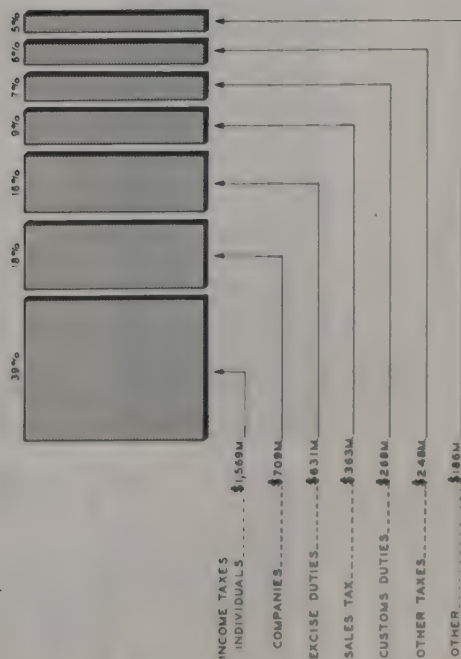
**ALL COMMONWEALTH FUNDS: TOTAL ADVANCES TO THE STATES
BY FUNCTION, 1960-61 TO 1964-65**
(\$'000)

	1960-61	1961-62	1962-63	1963-64	1964-65
Development of resources and assistance to industry—					
Brigalow lands development . . .	..	..	1,200	1,600	1,400
<i>Less Repayments</i> . . . . .	..	..	1,200	1,600	1,400
Blowering Reservoir . . . . .	..	..	..	840	3,492
<i>Less Repayments</i> . . . . .	..	..	..	840	3,492
Western Australia — Northern development . . . . .	..	..	..	350	550
<i>Less Repayments</i> . . . . .	..	..	..	350	550
Chowilla Reservoir . . . . .	..	..	..	100	156
<i>Less Repayments</i> . . . . .	..	..	..	100	156
Agricultural re-establishment loans .	..	..	..	..	..
<i>Less Repayments</i>	370 -370	312 -312	300 -300	248 -248	228 -228
War service land settlement	13,402	12,702	10,948	8,524	7,234
<i>Less Repayments</i>	9,750 3,652	10,102 2,600	10,206 742	11,118 -2,594	11,362 -4,128
Transport and communication—					
Railway projects	2,830	9,900	16,142	17,420	10,388
<i>Less Repayments</i>	124 2,706	180 9,720	228 15,914	276 17,144	824 9,564
Cattle roads . . . . .	..	..	..	1,998	2,300
<i>Less Repayments</i> . . . . .	..	..	..	1,998	2,300
Replacement of Derby jetty . . . .	..	..	300	350	150
<i>Less Repayments</i> . . . . .	..	..	300	350	54 96
Coal loading works . . . . .	..	568	996	196	926
<i>Less Repayments</i> . . . . .	..	..	56	156	176
	..	568	940	40	750
Housing	77,262	103,486	100,124	104,264	115,116
<i>Less Repayments</i>	6,964 70,298	7,112 96,374	7,466 92,658	8,298 95,966	9,348 105,768
Not allocated to function—					
Other . . . . .	..	..	..	..	762
<i>Less Repayments</i>	580 -580	116 -116	2,594 -2,594	880 -880	.. 762
Total gross advances	93,494	126,656	129,710	135,642	142,474
<i>Less Repayments</i>	17,788	17,822	20,850	20,976	21,992
Total net advances	75,706	108,834	108,860	114,666	120,482

Minus sign (—) denotes excess of repayments.

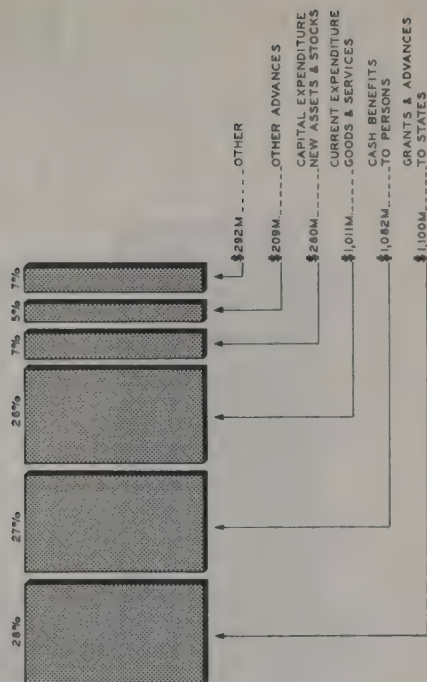
ALL COMMONWEALTH FUNDS: RECEIPTS AND EXPENDITURE, YEAR ENDED 30TH JUNE, 1965

RECEIPTS



TOTAL REVENUE
\$3,974 MILLION

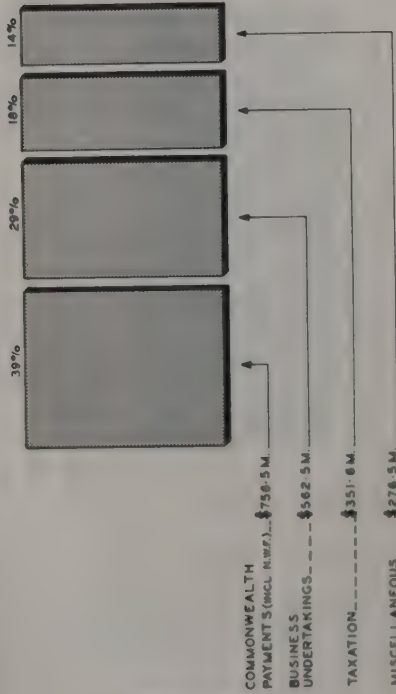
EXPENDITURE



TOTAL EXPENDITURE
\$3,974 MILLION

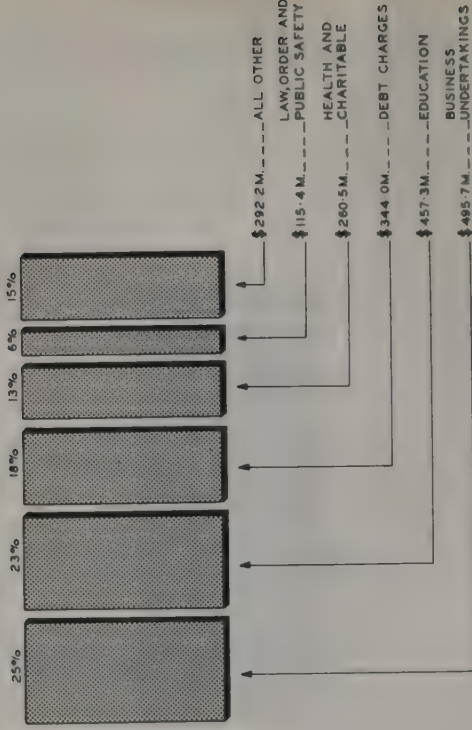
STATE CONSOLIDATED REVENUE FUNDS, YEAR ENDED 30TH JUNE, 1965

RECEIPTS



TOTAL REVENUE
\$1,947.1 MILLION

EXPENDITURE



TOTAL EXPENDITURE
\$1,965.1 MILLION

**ALL COMMONWEALTH FUNDS: GROSS ADVANCES TO THE STATES
TO 30 JUNE 1965
(\$'000)**

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
Development of resources and assistance to industry—							
Brigalow lands development . . .	..	..	4,200	..	..	..	4,200
Blowering Reservoir . . .	4,332	..	..	..	..	..	4,332
Western Australia—Northern development . . .	..	..	..	..	900	..	900
Chowilla Reservoir . . .	256	..	..	..	..	..	256
Agricultural re-establishment loans . .	5,320	2,080	1,220	928	2,222	600	12,370
War service land settlement . . .	13,542	14,397	..	62,106	94,851	49,264	234,160
Transport and communication—							
Railway projects . . .	104	9,480	34,534	5,980	13,008	..	63,106
Cattle roads . . .	..	..	4,298	..	..	..	4,298
Replacement of Derby jetty . . .	..	..	..	..	800	..	800
Coal loading works . . .	2,486	..	200	..	..	..	2,686
Housing . . .	441,720	393,710	117,841	148,372	113,762	49,603	1,265,007
Not allocated to function . . .	1,581	1,098	664	636	473	330	4,783
Total . . .	469,341	420,765	162,957	218,022	226,016	99,797	1,596,898

The figures in the table above represent gross advances, and take no account of repayments made by the States.

Contributions under Financial Agreement. Details of the Financial Agreement between the Commonwealth and the States are given in Year Book No. 37, pages 685–90. Under this Agreement the Commonwealth undertook to contribute £7,584,912 (\$15,169,824) per annum towards interest payable on the State loan securities for a period of 58 years from 1 July 1927. This amount is distributed among the States as follows: New South Wales, £2,917,411 (\$5,834,822); Victoria, £2,127,159 (\$4,254,318); Queensland, £1,096,235 (\$2,192,470); South Australia, £703,816 (\$1,407,632); Western Australia, £473,432 (\$946,864); Tasmania, £266,859 (\$533,718). These amounts are equal to the sums paid by the Commonwealth to each State in the year 1926–27 at the rate of 25s. (\$2.50) per head of population, the rate at which the Commonwealth had contributed annually to the States since 1 July 1910 as compensation for the States relinquishing, after federation, the right to levy customs and excise duties.

In addition, under the Financial Agreement the Commonwealth agreed to make certain contributions to the National Debt Sinking Fund for redemption of State loan securities. Details of these are given on pages 813–14 of this chapter.

Special grants to the States. The Constitution provides in Section 96 for the granting of special financial assistance to the States. The Commonwealth Grants Commission inquires into and reports upon claims made by any State for a grant of financial assistance and any matters relevant thereto. The recommendations of the Commission in respect of the years 1961–62 to 1965–66 are shown in their two parts in the following table. One part is the Commission's estimate of the indispensable need of the claimant State for the year in which the payment is to be made after allowing a sufficient margin for safety. The other part is an adjustment of this estimate for an earlier year after an examination of the audited accounts for that year. Thus the grants for 1965–66 include an estimate of the indispensable need of the claimant State for 1965–66 and an adjustment to the estimated grant for 1963–64.

**COMMONWEALTH GRANTS COMMISSION: GRANTS RECOMMENDED
1961-62 TO 1965-66
(\$'000)**

	1961-62	1962-63	1963-64	1964-65	1965-66
Western Australia—					
Estimated grant . . .	10,400	11,800	11,800	15,800	21,000
Adjustment(a) . . .	1,912	620	344	1,320	3,038
<i>Net grant recommended . . .</i>	<i>12,312</i>	<i>12,420</i>	<i>12,144</i>	<i>17,120</i>	<i>24,038</i>
Tasmania—					
Estimated grant . . .	8,200	9,800	10,200	13,618	16,400
Adjustment(a) . . .	1,950	282	556	982	1,332
<i>Net grant recommended . . .</i>	<i>10,150</i>	<i>10,082</i>	<i>10,756</i>	<i>14,600</i>	<i>17,732</i>
Grand total . . .	22,462	22,502	22,900	31,720	41,770

(a) Adjustment to estimated grant paid two years previously.

Financial assistance grants. The *States Grants Act* 1959 repealed the *States Grants (Tax Reimbursement) Acts* of 1946, 1947 and 1948, and provided for payment of financial assistance to the States in 1959–60 amounting to £244,500,000 (\$489,000,000) to be distributed among the States as follows: New South Wales, £83,450,000 (\$166,900,000); Victoria, £60,625,000 (\$121,250,000); Queensland, £36,375,000 (\$72,750,000); South Australia, £27,675,000 (\$55,350,000); Western Australia, £25,462,000 (\$50,924,000); Tasmania, £10,913,000 (\$21,826,000). In the years to 1964–65 the financial assistance grant payable to each State has been determined by increasing its grant for 1959–60 in accordance with a formula which takes into account movements in population in each State and the increases (if any) in the level of average wages per person employed as shown in returns submitted under the *Pay-roll Tax Assessment Act* 1941–1963.

Additional financial assistance grants. The *States Grants (Additional Assistance) Act* 1958 provided for the payment of £5,000,000 (\$10,000,000) from the Consolidated Revenue Fund for financial assistance to the States. During 1961–62, 1962–63, and 1963–64 additional assistance grants of £10,000,000 (\$20,000,000), £17,500,000 (\$35,000,000) and £20,000,000 (\$40,000,000), respectively, were provided for the States on a non-repayable basis under the authority of the *States Grants (Additional Assistance) Acts* 1962 and 1963 for expenditure on employment-giving activities, mainly in the works field.

Grants for road construction. Details of the *Main Roads Development Act* 1923–1925, *Federal Aid Roads Acts* 1926, 1931 and 1936, *Federal Aid Roads and Works Act* 1937, *Commonwealth Aid Roads and Works Act* 1947–1949, *Commonwealth Aid Roads Act* 1950, *Commonwealth Aid Roads Act* 1954, *Commonwealth Aid Roads (Special Assistance) Act* 1957, and *Commonwealth Aid Roads Act* 1959 are given in earlier issues of the Year Book (see No. 38, pages 787–8, No. 41, page 62, No. 46, page 838, and No. 51, page 922) and in the annual bulletin *Commonwealth Finance*. A new scheme of Commonwealth assistance to the States for roads was established by the *Commonwealth Aid Roads Act* 1964. Under this Act, which is to operate for a period of five years from 1 July 1964, the Commonwealth has undertaken to make available up to £375,000,000 (\$750,000,000) to the States for the construction, reconstruction, maintenance and repair of roads. Of this amount, a total of £330,000,000 (\$660,000,000) will be paid to the States as basic grants for roads over five years. The basic grants are fixed annual amounts which rise progressively by £2,000,000 (\$4,000,000) a year from £62,000,000 (\$124,000,000) in 1964–65 to £70,000,000 (\$140,000,000) in 1968–69. In each year the grants will be distributed between the States on the basis of 5 per cent of the total to Tasmania and the balance shared between the other five States, one-third in proportion to their respective populations at the date of the last preceding Census, one-third in proportion to their respective areas, and one-third in proportion to the respective number of motor vehicles registered in these States at 31 December preceding the year of payment. The balance of up to £45,000,000 (\$90,000,000) over the five years will be made available to the States as matching assistance for roads. The total amounts of matching assistance increases by £3,000,000 (\$6,000,000) a year from £3,000,000 (\$6,000,000) in 1964–65 to £15,000,000 (\$30,000,000) in 1968–69.

Reimbursement under Tuberculosis Act 1948. The *Tuberculosis Act* 1948 provided for the reimbursement by the Commonwealth of capital and maintenance expenditure incurred by the States in the provision of facilities for the diagnosis, treatment and control of tuberculosis. Re-imbursements from the National Welfare Fund of maintenance expenditure on tuberculosis hospitals are classified as cash benefits under Health and Welfare expenditure, and they equal the amounts by which such expenditures of the States in any financial year exceed those for the year 1947–48. As from 1 July 1948 the States have also been reimbursed from annual appropriations of the Department of Health for all their capital expenditure on buildings, furnishings, equipment and plant.

States Grants (Mental Institutions) Act 1955. This Act provides for financial assistance to the States for capital expenditure on mental institutions to a maximum amount of £10,000,000 (\$20,000,000). Each State is entitled to one-third of expenditure made on or after 1 July 1955 on buildings or equipment of a mental institution.

Education. Payments to the States for universities were first introduced in 1951–52 under the *States Grants (Universities) Act* 1951 and were continued under similar *States Grants (Universities Acts* 1953, 1955, 1956, 1957, 1958, and 1960. Details of these Acts are given in earlier issues of the Year Book (see No. 51, page 923). The *Universities (Financial Assistance) Act* 1963 as amended in 1965 provides for financial assistance to the States, for universities, of £65,300,000 (\$130,600,000) over the three calendar years 1964, 1965 and 1966. (See also the chapter Education, Cultural Activities, and Research, pages 610–13.)

The *States Grants (Science Laboratories and Technical Training) Act* 1964 and the *States Grants (Science Laboratories) Act* 1965 provide for grants during 1964–65 to 1967–68 inclusive for improving science teaching in both government and non-government secondary schools.

Grants for buildings and equipment for use in technical training in schools and colleges conducted by States only are provided for under the *State Grants (Science Laboratories and Technical Training) Act 1964* and the *States Grants (Technical Training) Act 1965*.

Railway projects. Under the *Railway Standardization (South Australia) Agreement Act 1949* the Commonwealth is providing funds for the conversion of lines in the south-eastern division of the State as an initial step towards eventual standardization to 4' 8½" gauge. The State is to repay three-tenths of the cost of this work over a period of fifty years and is to bear the full cost of subsequent conversion from broad to standard gauge. Similar conditions apply to expenditures under the *Railway Equipment Agreement (South Australia) Act 1961*. Under the *Railway Standardization (New South Wales and Victoria) Agreement Act 1958* the Commonwealth provided funds for the construction of the standard gauge rail link between Albury and Melbourne on the basis that the States of Victoria and New South Wales will each bear fifteen per cent of the cost by instalments over a period of fifty years.

The total expenditure on railway standardization (the thirty per cent advances to the States and the seventy per cent grants to the States) is charged to the capital works and services vote of the Department of Shipping and Transport. Under the *Railway Agreement (Western Australia) Act 1961* the Commonwealth is providing financial assistance for the construction of a standard gauge railway from Kwinana to iron ore deposits at Koolyanobbing and to Kalgoorlie.

Cattle roads grants. The *Queensland Grant (Beef Cattle Roads) Act 1961* provided for a grant of £5,000,000 (\$10,000,000) to be paid to Queensland over the five-year period commencing 1 July 1961 for expenditure on approved roads for the transport of beef cattle. Under the *Western Australia Grant (Beef Cattle Roads) Act 1961* special grants were made to Western Australia for certain work on roads and bridges in the north of the State.

Western Australia—Northern development. The Commonwealth provides financial assistance of up to £5,000,000 (\$10,000,000) to the State of Western Australia under the *Western Australia Grant (Northern Development) Act 1958–1959* in respect of developmental expenditure by the State in the area of Western Australia north of the twentieth parallel of latitude during the period of five years commencing on 1 July 1958. Under the scheme Commonwealth assistance is provided in respect of projects, nominated by the State, which the Commonwealth is satisfied will contribute to the development of the area and which could not reasonably be expected to be carried out during the period of five years without the grant of Commonwealth assistance.

Brigalow lands. Under the *Brigalow Lands Agreement Act 1962* Commonwealth advances to the State of Queensland for specified works associated with the production of beef cattle and other primary products in the Fitzroy River Basin and the supply of beef for export were limited to £7,250,000 (\$14,500,000) during the period of five years ending 30 June 1967. Repayments over a twenty year period are to commence in 1968.

Flood mitigation, New South Wales. Commonwealth payments under the *New South Wales Grant (Flood Mitigation) Act 1964* are limited to £2,750,000 (\$5,500,000) in respect of flood mitigation works on the Macleay, Clarence, Richmond, Tweed, Shoalhaven, and Hunter Rivers. The Commonwealth grants will match State expenditure which, in turn, will be in a prescribed ratio to local authority expenditure on flood mitigation works.

Blowering Reservoir, New South Wales. The Blowering Reservoir is to be constructed at the expense of the State of New South Wales mainly by the Snowy Mountains Hydro-electric Authority, and the Commonwealth will finance half the cost in the form of repayable interest-bearing loans to that State.

Chowilla Reservoir, New South Wales. The Chowilla Reservoir is to be constructed as an approved work under the River Murray Waters Agreement, and the Commonwealth advances to New South Wales are to assist in the financing of that State's one-quarter contribution of the cost of construction.

Water resources investigations. Under the *States Grants (Water Resources) Act 1964* the Commonwealth is authorized to grant financial assistance to the States for the purpose of accelerating the States' programmes of measuring the discharge of rivers and investigating underground water resources. Grants to each State are related to that State's capital expenditure and the operational expenditure it incurs in carrying out its measurement and investigation programmes.

Development of Exmouth township, Western Australia. In 1964–65 the Commonwealth contributed an amount of \$380,000 to the Western Australia Government towards the cost of developing a township at Exmouth in connection with the United States Communications Base being established at North West Cape.

All Commonwealth funds: receipts

Commonwealth taxation

Taxation constitutes the main sources of Commonwealth revenue, accounting for 95.2 per cent in 1964-65. The following table shows details of taxation receipts from each source during the years 1960-61 to 1964-65.

ALL COMMONWEALTH FUNDS: TAXATION RECEIPTS, 1960-61 TO 1964-65

(\$'000)

Source of receipts	1960-61	1961-62	1962-63	1963-64	1964-65
Income tax—					
Individuals	1,036,824	1,073,772	1,082,622	1,271,063	1,569,483
Companies	565,124	565,376	519,828	586,260	709,044
Dividend (withholding)	11,920	16,233	17,929	15,936	16,039
Customs	202,007	170,244	210,136	232,497	268,400
Excise	514,818	531,291	548,803	582,464	631,242
Sales tax	346,079	297,648	313,062	325,189	362,857
Pay-roll tax	122,519	121,943	126,510	136,443	150,078
Estate duty	29,614	34,058	35,699	39,871	41,531
Gift duty	5,567	5,594	6,328	6,488	7,308
Primary production and other charges	2,258	2,854	3,643	4,007	4,808
Stevedoring industry charge	7,689	6,865	8,985	10,321	10,411
Wheat tax	523	468	595	638	720
Wool tax	3,310	5,708	5,911	6,359	13,987
Broadcasting stations' licence fees	208	195	214	235	226
Television stations' licence fees	130	183	181	232	28
Territories—					
Australian Capital Territory	802	692	758	898	1,122
Northern Territory	240	214	212	440	482
Other	1,452	2,150	924	800	658
Total	2,851,082	2,835,487	2,882,342	3,220,140	3,788,423

The following table shows the proportion of the total collections represented by returns from each class of taxation for the years 1960-61 to 1964-65.

COMMONWEALTH TAXATION: PROPORTION OF EACH CLASS TO
TOTAL NET COLLECTIONS, 1960-61 TO 1964-65

(Per cent)

Type of tax	1960-61	1961-62	1962-63	1963-64	1964-65
Income taxes	56.6	58.4	56.2	58.2	60.5
Customs	7.1	6.0	7.3	7.2	7.1
Excise	18.1	18.7	19.0	18.1	16.6
Sales tax	12.1	10.5	10.9	10.1	9.6
Pay-roll tax	4.3	4.3	4.4	4.2	4.0
Estate duty	1.0	1.2	1.2	1.2	1.1
Gift duty	0.2	0.2	0.2	0.2	0.2
Primary production and other charges	0.1	0.1	0.1	0.1	0.1
Stevedoring industry charge	0.3	0.2	0.3	0.3	0.3
Wool tax	0.1	0.2	0.2	0.2	0.4
Other	0.1	0.2	0.2	0.2	0.1
Total taxation	100.0	100.0	100.0	100.0	100.0

Customs and excise receipts

The following tables give details of net customs and excise receipts for the years 1960-61 to 1964-65.

**COMMONWEALTH CUSTOMS REVENUE: CLASSIFICATION OF
NET RECEIPTS, 1960-61 TO 1964-65**

(\$'000)

Class	1960-61	1961-62	1962-63	1963-64	1964-65
Foodstuffs of animal origin	1,355	1,030	1,198	1,464	1,564
Foodstuffs of vegetable origin	4,200	4,126	4,159	4,909	3,210
Spirituous and alcoholic liquors	10,403	11,693	10,956	12,670	14,709
Tobacco, cigars and cigarettes	26,704	23,995	25,517	26,401	27,596
Animal substances (not foodstuffs)	15	10	10	12	13
Vegetable substances and fibres	336	493	641	599	630
Yarns, textiles and apparel	31,147	25,725	29,888	33,582	39,400
Oils, fats and waxes	24,861	18,298	22,733	21,696	20,718
Pigments, paints and varnishes	635	568	810	765	759
Rocks and minerals	92	124	226	236	17
Metals, metal manufactures and machinery	57,309	41,671	65,013	74,074	91,644
Rubber and leather and manufactures thereof	1,878	1,676	2,634	3,502	5,502
Wood and wicker, raw and manufactured	4,705	3,028	3,247	4,379	6,393
Earthenware, cement, china, glass and stoneware	6,004	5,347	5,903	5,954	6,742
Pulp, paper and board, paper manufactures and stationery	4,721	4,808	5,556	5,608	6,476
Sporting materials, toys, fancy goods, jewellery and timepieces	7,051	6,474	7,201	7,515	8,853
Optical, surgical and scientific instruments, photographic goods	3,365	3,184	3,354	3,836	4,769
Chemicals, pharmaceutical products, essential oils and fertilizers	3,612	4,261	4,441	6,066	6,228
Miscellaneous goods	10,090	9,524	12,136	13,904	16,905
Primage	4,596	3,681	4,304	4,638	5,465
Other receipts	490	606	275	764	887
All classes	203,569	170,321	210,202	232,572	268,480
Less remission of duty under special circumstances	1,562	77	66	75	80
Total	202,007	170,244	210,136	232,497	268,400

**COMMONWEALTH EXCISE REVENUE: CLASSIFICATION OF NET RECEIPTS
1960-61 TO 1964-65**

(\$'000)

	1960-61	1961-62	1962-63	1963-64	1964-65
Beer	223,481	227,008	234,525	247,169	260,214
Spirits	17,171	16,836	17,164	18,306	19,207
Tobacco	26,778	23,795	21,082	18,710	17,795
Cigars and cigarettes	129,939	134,976	140,372	146,199	171,073
Cigarette papers	1,431	1,281	1,141	1,013	901
Petrol	103,904	115,809	122,029	135,974	148,194
Diesel fuel	4,598	4,506	5,152	7,665	9,099
Matches	2,211	2,189	2,253	2,288	2,276
Playing cards	99	105	98	104	106
Coal	778	581	560	585	599
Cathode ray tubes	3,913	4,113	4,212	3,911	605
Canned fruit . . . . .	..	..	..	402	1,092
Miscellaneous	550	85	103	42	1
All items	514,852	531,284	548,692	582,369	631,162
Diesel fuel taxation	196	265	323	319	309
Less rebates	230	258	211	224	229
	- 34	8	111	95	80
Total	514,818	531,291	548,803	582,464	631,242

Primary production and other charges

Details of collections during the years 1960-61 to 1964-65 of primary production and other charges are given in the following table.

COMMONWEALTH PRIMARY PRODUCTION AND OTHER CHARGES: RECEIPTS
1960-61 TO 1964-65
 (\$'000)

Source of revenue	1960-61	1961-62	1962-63	1963-64	1964-65
Apple and pear export charge	172	218	198	251	213
Canned fruit export charge	125	131	138	183	176
Canning fruit charge	60	91	142	61	101
Cattle slaughter levy	167	420	813	879	298
Dairy produce export charge	167	205	437	527	674
Dairy produce levy	700	779	791	793	817
Dried fruits export charge	76	104	85	118	155
Egg export charge	124	66	35	56	82
Honey levy . . . . .	..	..	7	81	104
Livestock slaughter levy—					
Cattle . . . . .	..	..	..	..	1,157
Sheep and lambs . . . . .	..	..	..	..	299
Meat export charge	208	286	438	486	103
Tobacco charge	273	329	239	348	354
Wine export charge	185	225	320	224	274
Total	2,258	2,854	3,643	4,007	4,808

Other Commonwealth taxation

Taxes other than customs and excise duties, the various export charges, and some taxes on particular commodities are assessed and collected by the Commissioner of taxation. The Commissioner's organization comprises a head office in Canberra, an office in each State assessing the returns of taxpayers whose interests are restricted to that State, and a central office situated in Melbourne assessing taxpayers whose interests are in more than one State.

Details of the purposes and rates applicable to the main forms of Commonwealth taxation, excluding customs and excise, currently imposed and of current legislation are given in the following pages. Historical information is given in Year Book No. 51, pages 905-10, and in earlier issues. Taxes on income are treated separately on pages 814-25, and customs and excise duties are dealt with in the chapter Oversea Transactions. For detailed statistics relating to Commonwealth income taxes, estate duty, gift duty, and sales tax see the annual bulletin *Commonwealth Taxation Assessments*.

Sales tax. The general rate of tax levied on all goods other than those specified in the schedules to the *Sales Tax (Exemptions and Classifications) Act 1935-1964* was 12½ per cent and goods subject to special rates were taxed at the rates of 2½ and 25 per cent.

Particulars of the net amount of sales tax payable and the sales of taxable and exempt goods in each State for 1964-65 are given in the following table. The figures relate to sales during the period 1 July to 30 June. The figures for sales tax payable differ from those for net collections shown on page 772 because the latter include some adjustments in respect of earlier tax years and relate to tax payable on returns lodged during the year, which in general cover sales for the period June to May.

COMMONWEALTH SALES TAX AND AMOUNT OF SALES: STATES
AND TERRITORIES, 1964-65

(\$'000)

—	N.S.W. (a)	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
Net sales on which sales tax was payable at—								
2½ per cent	191,610	177,505	59,350	44,260	30,050	10,692	139	513,606
12½ per cent	537,905	389,968	169,459	111,726	79,727	23,494	1,599	1,313,878
22½ per cent	32,452	26,071	13,076	9,530	5,530	1,179	79	87,918
25 per cent	264,121	205,967	88,017	64,804	40,127	10,089	374	673,500
<i>Total, net sales</i>	<i>1,026,089</i>	<i>799,511</i>	<i>329,902</i>	<i>230,320</i>	<i>155,434</i>	<i>45,453</i>	<i>2,192</i>	<i>2,588,902</i>
Sales of exempt goods by registered persons	2,740,490	1,958,654	884,995	563,822	469,453	189,263	12,226	6,818,904
Total sales of taxable and exempt goods	3,766,579	2,758,166	1,214,898	794,142	624,887	234,717	14,418	9,407,806
Sales tax payable	145,360	110,541	47,613	33,417	21,993	5,991	315	365,232

(a) Includes Australian Capital Territory.

Sales of taxable and exempt goods and sales tax payable for Australia as a whole are shown in the following table for the years 1960-61 to 1964-65.

COMMONWEALTH SALES TAX AND AMOUNT OF SALES
AUSTRALIA, 1960-61 TO 1964-65

(\$ million)

Year of sale	Net sales on which sales tax was payable	Sales of exempt goods by registered persons	Total sales of taxable and exempt goods	Sales tax payable
1960-61	2,081	4,894	6,975	343
1961-62	2,100	4,832	6,931	297
1962-63	2,303	5,254	7,557	314
1963-64	2,393	6,116	8,509	329
1964-65	2,589	6,819	9,408	365

In the foregoing tables sales include goods transferred to stock for sale by retail, goods imported by persons other than registered taxpayers, and goods used in the business of the taxpayer. Exempt sales relate to goods exempted from sales tax under the *Sales Tax (Exemptions and Classifications) Act 1935-1964*. The figures shown do not represent the total sales of all commodities, as vendors trading only in exempt goods are not required to be registered, and consequently the volume of their sales is not included in the statistics above. In addition, non-taxable sales (i.e., goods sold by one registered taxpayer to another registered taxpayer) are excluded.

Pay-roll tax. From 1 September 1957 to the end of June 1965 pay-roll tax of 2½ per cent was payable by employers on all wages and salaries in excess of £200 (\$400) a week or £10,400 (\$20,800) per annum. Employers whose export sales have increased above the annual average of export sales effected during a base period of two years ended 30 June 1960 are entitled under the Commonwealth Government's export incentive scheme to a rebate of pay-roll tax of twelve and one-half times the percentage increase in export sales.

Estate duty. Under the *Estate Duty Assessment Act 1914-1963* estate duty is assessed on the net value of the estate less a statutory exemption determined in accordance with the following formula: (a) where the whole of the estate passes to the widow or widower, children (including adopted children, step-children and ex-nuptial children), or grand-children of the deceased, the sum of \$20,000 decreasing by £1 for every £4 (\$2 for every \$8) by which the value exceeds

\$20,000 and ceasing to apply at \$100,000; (b) where no part of the estate passes to the widow or widower, children or grand-children, the sum of \$10,000 decreasing by £1 for every £4 (\$2 for every \$8) by which the value exceeds \$10,000 and ceasing to apply at \$50,000; and (c) where only part of the estate passes to the widow or widower, children or grand-children, the statutory exemption is to be calculated proportionately under (a) and (b). Rebates of duty are provided on estates which become liable for duty on two or more occasions within a period of five years.

The rates of duty levied under the *Estate Duty Act 1914-1941* increase as the value of the estate for duty increases, as follows: £1 to £10,000 (\$2 to \$20,000), 3 per cent; £10,001 to £20,000 (\$20,001 to \$40,000), 3 per cent to 6 per cent; £20,001 to £120,000 (\$40,001 to \$240,000), 6 per cent to 26 per cent.; £120,001 to £500,000 (\$240,001 to \$1,000,000), 26 per cent to 27.9 per cent; £500,001 (\$1,000,001) and over, 27.9 per cent.

Particulars of the number and value of estates and duty assessed, for each of the assessment years 1959-60 to 1963-64, are given in the following table.

COMMONWEALTH ESTATE DUTY ASSESSMENTS, 1959-60 TO 1963-64

—	1959-60	1960-61	1961-62	1962-63	1963-64
Number of estates	13,978	14,196	16,449	16,634	17,658
Gross value assessed \$'000	467,120	489,952	558,764	588,306	633,552
Deductions \$'000	80,906	91,366	95,450	106,732	115,002
Statutory exemption \$'000	63,194	66,102	74,360	74,510	81,836
Dutiable value \$'000	323,020	332,482	388,954	407,064	436,714
Duty payable \$'000	28,232	31,178	34,328	37,988	39,840
Average dutiable value \$	23,110	23,420	23,646	24,472	24,732
Average duty per estate \$	2,020	2,196	2,086	2,284	2,256

Gift duty. The *Gift Duty Act 1941-1947* and the *Gift Duty Assessment Act 1941-1963* impose a gift duty on all gifts made after 29 October 1941. A gift has been defined as any disposition of property which is made otherwise than by will without adequate consideration in money or money's worth. There is a liability on both the donor and the donee to furnish a return, and both are jointly and severally liable for payment of the duty.

The following rates of duty are levied under the *Gift Duty Act 1941-1947* and relate to the total value of all gifts made by the donor within a period of eighteen months: not exceeding \$4,000, nil; \$4,001 to \$20,000, 3 per cent; \$20,001 to \$40,000, 3 per cent to 6 per cent; \$40,001 to \$240,000, 6 per cent to 26 per cent; \$240,001 to \$1,000,000, 26 per cent to 27.9 per cent; \$1,000,001 and over, 27.9 per cent. An amendment which operated from 3 June 1947, provides that gift duty shall not exceed half the amount by which the value of the gift exceeds \$4,000.

Wool tax. From 1 July 1964 to 30 June 1965, the wool tax rate was $1\frac{7}{8}$ per cent of the sale value of the wool. This rate was increased to 2 per cent from 1 July 1965. (See also the chapter Rural Industry.)

Wheat export charge and wheat tax. The *Wheat Export Charge Act 1963* repealed the *Wheat Export Charge Act 1958* and provided for an export charge on wheat and wheat products for the seasons 1963-64 to 1967-68 inclusive. The charge which may be levied is the excess of the export price over the cost of production or 1s. 6d. (\$0.15) per bushel, whichever is the less. Under the *Wheat Industry Stabilization Act 1963-1965*, to which the *Wheat Export Charge Act* is complementary, the Commonwealth Government guarantees a return to wheat-growers of the ascertained cost of production on up to 150 million bushels of wheat harvested each season exported from Australia. Collections from the wheat export charge are paid into the Wheat Price Stabilization Fund, out of which payments will be made to the Australian Wheat Board, when required, for the purpose of building up the average export price for any season to the guaranteed price. If the fund is exhausted, additional payments will be made from the Consolidated Revenue Fund. As the return from exports has been below the guaranteed price, there have been no collections of the wheat export charge since the 1956-57 (No. 20) Pool when \$3,178,000 was collected. The *Wheat Tax Act 1965* imposes a tax of three-tenths of a penny (0.25 cents) for each bushel of wheat delivered to the Wheat Board on or after 1 October 1965. (See also the chapter Rural Industry.)

Miscellaneous export charges. These consist of charges levied on exports of apples and pears (*Apple and Pear Export Charges Act 1938–1960*), canned fruits (*Canned Fruits Export Charges Act 1962–1963*), dairy produce (*Dairy Produce Export Charge Act 1924–1962*), dried fruits (*Dried Fruits Export Charges Act 1924–1929*), eggs (*Eggs Export Charges Act 1947*) and meat (*Meat Export Charges Act 1935–1954*), and on grapes used in the manufacture of wine (*Wine Grapes Charges Act 1929–1957*).

Stevedoring industry charge. The rate of charge between 1 April 1962 and the end of June 1965 was 3s. 4d. (33½ cents).

Tobacco charge. The rates of tobacco charge currently in force are as follows:

- (a) In respect of leaf sold to a manufacturer:
 - (i) one half cent per pound of leaf, payable by the grower or other persons who own the leaf immediately before sale, and
 - (ii) one cent per pound of leaf, payable by the manufacturer;
- (b) In respect of leaf grown and used by grower-manufacturers:
 - (i) where the manufacturer grows nine-tenths of the leaf used by him—one half cent per pound of leaf,
 - (ii) in other cases—one cent per pound of leaf.

(See also the chapter Rural Industry.)

Dairy produce and butterfat levies. The *Butterfat Levy Act 1965* superseded the *Dairy Produce Levy Act 1958* and provides for a maximum rate of 6s. (\$0.60) per hundredweight of butterfat content of dairy products and for the apportionment of the proceeds between overseas marketing (40 per cent), local promotion (40 per cent) and research (20 per cent) from the dairy produce levy. (See also the chapter Rural Industry.)

Canning fruit charge. Rates applied during 1964–65 were 5s. (\$0.50) per ton to 30 November 1964 and 7s. 6d. (\$0.75) per ton from 1 December 1964 to 30 June 1965. (See also the chapter Rural Industry.)

Honey levy. The current rate of levy on honey sold for domestic consumption in Australia is four-tenths of a cent per pound.

Livestock slaughter levy. The *Livestock Slaughter Act 1964–1965* imposed a levy on all cattle (over 200 lb. dressed weight), sheep and lambs slaughtered within Australia for human consumption. These levies operated from 1 August 1964 and replaced the charge imposed on meat exports and also subsumed the cattle slaughter levy for beef research purposes imposed in 1960 (see page 909 of Year Book No. 51). The rates of levy are not to exceed 75 cents for cattle of which a maximum of 20 cents is for beef research, and 7.5 cents for sheep or lambs, of which a maximum of 3.75 cents is for sheep or lamb research.

Commonwealth Consolidated Revenue Fund: expenditure

Details of expenditure from Consolidated Revenue

In the following table gross expenditure from Consolidated Revenue is classified by function and economic type, the classification being consistent with that used for tables on pages 759–60. As with grants to other Commonwealth authorities, transfers to trust funds are here classified as expenditure according to the nature of the respective trust funds. Further information on the expenditure of business undertakings and the Territories, and on other particular functions is included in the chapters Transport and Communication and The Territories of Australia and in the chapters dealing with the respective activities.

**COMMONWEALTH CONSOLIDATED REVENUE FUND: EXPENDITURE
BY FUNCTION AND ECONOMIC TYPE, 1960-61 TO 1964-65**
(\$'000)

	1960-61	1961-62	1962-63	1963-64	1964-65
Health and welfare—					
Advances		1,000	1,000		600
Cash benefits to persons	661,514	731,198	758,972	833,112	879,894
Current expenditure on goods and services	20,492	22,440	26,284	28,206	30,408
Capital expenditure on goods and services	2,692	2,258	2,412	3,100	3,510
Grants to the States	2,302	2,450	2,602	2,218	3,224
Grants towards private capital expenditure	4,306	6,946	6,372	7,408	8,000
<i>Total, health and welfare</i>	<i>691,306</i>	<i>766,292</i>	<i>797,642</i>	<i>874,044</i>	<i>925,638</i>
Defence—					
Current expenditure on goods and services	374,692	408,048	427,014	474,422	568,686
Grants to overseas governments and organizations	2,302	3,154	7,584	5,414	12,210
Other	22,610	—1,776	—2,326	38,842	17,214
Total	399,604	409,426	432,272	518,678	598,110
Less Amounts charged to loan fund		47,282	132,140	77,430	
<i>Total, defence</i>	<i>399,604</i>	<i>362,144</i>	<i>300,132</i>	<i>441,248</i>	<i>598,110</i>
Repatriation—					
Cash benefits to persons	149,728	157,308	165,806	182,538	183,294
Current expenditure on goods and services	41,284	44,902	50,056	55,210	58,818
Capital expenditure on goods and services	772	922	996	712	1,124
Grants towards private capital expenditure	2,212	3,118	2,342	800	2,794
<i>Total, repatriation</i>	<i>193,996</i>	<i>206,250</i>	<i>219,200</i>	<i>239,260</i>	<i>246,030</i>
Housing—					
Expenses of business undertakings	1,442	1,270	1,298	1,458	1,376
Advances—					
War Service Homes	70,000	70,000	75,000	70,000	70,000
Other	5,040	5,496	6,682	7,770	16,890
Cash benefits to persons	704	130	38	46	130
Current expenditure on goods and services	2,212	2,342	2,602	3,056	3,842
Capital expenditure on goods and services	9,422	9,720	10,502	9,686	12,436
Grants towards private capital expenditure					11,350
<i>Total, housing</i>	<i>88,820</i>	<i>88,958</i>	<i>96,122</i>	<i>92,016</i>	<i>116,024</i>
Other functions—					
Expenses of business undertakings	258,954	273,976	262,396	286,800	314,898
Other current expenditure on goods and services	195,183	220,378	241,846	287,786	341,374
Capital expenditure on goods and services—					
Business undertakings(a)	91,068	104,376	137,460	151,120	177,330
Other	45,060	49,534	51,612	61,558	73,448
Subsidies	49,452	73,726	71,252	115,658	99,808
Cash benefits to persons	10,296	12,592	12,536	13,350	18,746
Grants to the States—					
Current purposes	15,662	18,110	20,396	23,106	31,258
Capital purposes	111,164	123,528	133,222	140,476	178,742
Grants to overseas governments and organizations(b)	44,128	49,434	57,582	70,348	84,150
Grants towards private capital expenditure					4,050
Advances—					
Snowy Mountains Hydro-electric Authority	37,000	32,020	18,532	23,658	26,100
States	2,830	2,968	6,720	10,754	13,788
Overseas governments and organizations		3,570		4	78
Other	7,004	25,728	7,974	15,430	8,272
<i>Total, advances</i>	<i>46,834</i>	<i>64,286</i>	<i>33,226</i>	<i>49,846</i>	<i>48,238</i>
Expenditure not allocated to function—					
Current expenditure on goods and services	14,450	14,170	8,348	9,392	11,008
Capital expenditure on goods and services	10,570	11,930	12,518	11,028	13,462
Grants to the States	584,942	655,390	695,808	729,730	744,884
Advances to overseas governments and organizations	6,760	7,268	31,148	8,070	24,868
Debt charges(c)—					
Interest	86,978	86,214	81,084	81,260	81,868
Payment to National Debt Sinking Fund	46,208	50,218	54,486	57,530	61,500
Loan Consolidation and Investment Reserve	285,122	44,310	52,756	29,750	222,744
Redemption of Treasury bills				36,000	
Grand total	3,276,557	3,283,084	3,370,772	3,809,376	4,418,178

(a) Includes expenses of undertakings in Northern Territory and Australian Capital Territory.
 (b) Includes grants to Administration of Papua and New Guinea and grants under Colombo Plan, United Nations Technical Assistance Administration, etc. (c) Excludes loan management expenses included in other functions.

Minus sign (—) denotes the result of differences in timing between payments for, and deliveries of, defence equipment.

More detailed information on defence expenditure, on current and capital expenditure on goods and services, and on primary production research and sales promotion, etc. is given in the following tables.

Defence services expenditure

Details of the expenditure on defence services shown in the following table cover expenditure from Consolidated Revenue and Loan Funds by the service and associated departments, including the cost of maintaining forces in overseas posts. In recent years there has been no expenditure on defence services from Trust Funds. Re-allocation of items has caused revision to some of the figures which appeared in previous issues.

COMMONWEALTH CONSOLIDATED REVENUE FUND
EXPENDITURE ON DEFENCE, 1960-61 TO 1964-65

(\$'000)

	1960-61	1961-62	1962-63	1963-64	1964-65
Department of Defence—					
Administrative and general expenses	2,499	2,803	5,293	3,532	4,207
Buildings, works, sites, etc.	36	452	241	113	294
Maintenance and rent	72	65	100	112	117
<i>Total, Defence</i>	<i>2,607</i>	<i>3,320</i>	<i>5,634</i>	<i>3,757</i>	<i>4,618</i>
Department of the Navy—					
Naval Forces—pay, maintenance, etc.	64,500	67,194	63,708	72,359	83,624
Naval construction and additions to the fleet	15,796	12,939	14,805	23,763	35,967
Ships, aircraft and aircraft engines	4,302	10,156	14,932	9,702	8,622
Buildings, works, sites, etc.	2,799	2,595	2,879	2,413	4,052
Maintenance and rent	2,216	2,132	2,099	2,417	2,631
Retirement benefits	838	790	838	1,024	1,172
<i>Total, Navy</i>	<i>90,451</i>	<i>95,806</i>	<i>99,261</i>	<i>111,678</i>	<i>136,069</i>
Department of the Army—					
Military Forces—pay, maintenance, etc.	79,260	81,855	83,544	91,300	108,920
Special units serving abroad—maintenance	5,064	4,190	3,658	4,026	4,566
Arms, armament and equipment	34,666	33,692	36,958	48,432	61,690
Buildings, works, sites, etc.	6,699	5,263	5,482	6,551	13,856
Maintenance and rent	4,474	4,460	4,649	5,444	6,372
Retirement benefits	2,118	1,858	2,202	2,668	3,368
<i>Total, Army</i>	<i>132,281</i>	<i>131,318</i>	<i>136,493</i>	<i>158,421</i>	<i>198,772</i>
Department of Air—					
Air Force—pay, maintenance, etc.	53,903	55,447	55,848	59,221	69,389
R.A.A.F. squadrons overseas	4,694	4,558	5,156	5,570	5,592
Aircraft, equipment and stores	54,854	57,768	61,302	101,418	91,034
Buildings, works, sites, etc.	7,666	6,532	6,144	5,616	7,598
Maintenance and rent	4,247	4,751	5,279	5,324	5,570
Retirement benefits	2,028	1,704	1,738	1,996	2,996
<i>Total, Air</i>	<i>127,392</i>	<i>130,760</i>	<i>135,467</i>	<i>179,145</i>	<i>182,179</i>
Department of Supply—					
Administrative and general expenses	5,592	6,046	6,825	3,746	8,912
Defence Research and Development Laboratories	4,932	5,360	7,756	9,292	10,608
Government factories—maintenance of production capacity	2,562	2,890	2,952	3,090	2,766
Transport and storage services	2,270	2,266	4,178	4,508	6,764
Weapons Research Establishment	18,980	19,020	15,256	29,012	28,320
Munitions factories—working capital	300	240	660	164	..
Machinery, plant equipment, etc.	3,416	3,276	4,080	4,650	4,850
Buildings, works, sites, n.e.i. etc.	2,481	2,430	2,602	2,185	2,486
Maintenance and rent	1,431	1,758	1,799	1,939	2,038
<i>Total, Supply</i>	<i>41,964</i>	<i>43,288</i>	<i>46,110</i>	<i>58,586</i>	<i>66,744</i>
Defence aid for Malaysia . . . . .	..	..	..	144	3,376
Economic assistance to support defence programme of S.E.A.T.O. member countries	1,552	1,154	2,496	1,888	2,504
Security Intelligence Organization	1,338	1,322	1,410	1,716	1,920
Civil defence	224	444	546	642	644
Recruiting campaign	948	962	1,000	1,378	1,690
Aid to India . . . . .	..	..	2,892	1,284	60
Other	847	1,052	963	39	-466
<i>Total, Defence Services</i>	<i>399,604</i>	<i>409,426</i>	<i>432,272</i>	<i>518,678</i>	<i>598,110</i>
Less Expenditure charged to Loan Fund . . . . .	..	47,282	132,140	77,430	..
Total expenditure charged to Consolidated Revenue Fund	399,604	362,144	300,132	441,248	598,110

Current expenditure on goods and services

This table gives details of expenditure on items included under this general heading in the table on page 778, and in the main includes expenditure on administrative services and other activities (i.e. what might be termed 'running expenses') and therefore *excludes* expenditure on capital works (see table on page 781). Information on the functions of departments and the Acts administered by the Ministers of Departments may be found on pages 87-98 of Year Book No. 49.

**COMMONWEALTH CONSOLIDATED REVENUE FUND: CURRENT EXPENDITURE
ON GOODS AND SERVICES, 1960-61 TO 1964-65**
(\$'000)

	1960-61	1961-62	1962-63	1963-64	1964-65
Education—					
Australian National University	4,778	6,400	7,020	8,640	11,400
Australian Universities Commission	56	58	88	122	158
Office of Education	824	1,042	1,304	1,482	1,726
Other	2,922	3,100	3,616	4,132	5,502
<i>Total, education</i>	8,580	10,600	12,028	14,376	18,786
Health and welfare	20,492	22,440	26,284	28,206	30,408
Defence—					
<i>Total</i>	374,692	408,048	427,014	474,422	568,686
<i>Less Amounts charged to Loan Fund</i>		47,282	132,140	77,430	
<i>Total, defence</i>	374,692	360,766	294,874	396,992	568,686
Repatriation	41,284	44,902	50,056	55,210	58,818
Housing	2,212	2,342	2,602	3,056	3,842
Law, order and public safety—					
Crown Solicitor's Office	840	878	960	1,144	1,216
High Court	316	338	332	340	370
Bankruptcy administration	428	484	522	576	624
Other	3,772	3,330	3,820	4,422	5,096
<i>Total, law, order, etc.</i>	5,356	5,030	5,634	6,482	7,306
Development of resources and assistance to industry—					
Bureau of Meteorology	3,454	3,722	3,992	4,428	4,906
Forestry Branch	390	468	450	394	646
Commercial intelligence services abroad	1,742	2,032	2,376	2,726	2,996
Primary production—					
Wheat and wool industries	5,770	8,174	8,396	9,122	22,150
Other research and sales promotion, export funds, etc.	2,336	3,088	3,918	5,230	5,790
Bureau of Agricultural Economics	344	376	372	444	472
Bureau of Mineral Resources, Geology and Geophysics	2,692	3,366	4,020	4,930	4,708
Division of National Mapping	834	1,154	1,346	1,414	1,706
Atomic Energy Commission	4,758	5,608	6,518	7,594	8,040
Commonwealth Scientific and Industrial Research Organization	15,476	17,164	18,988	21,408	24,406
Other	13,352	13,936	15,192	16,760	18,250
<i>Total, development, etc.</i>	51,148	59,088	65,568	74,450	94,070
Civil aviation—					
Maintenance and development of civil aviation	14,564	14,758	15,728	17,736	20,296
Meteorological services	1,656	1,790	1,920	2,140	2,392
Other	4,796	5,374	7,180	8,658	9,244
<i>Total, civil aviation, etc.</i>	21,016	21,922	24,828	28,534	31,932
Legislature and general administration—					
Parliament	4,240	4,148	4,278	4,414	4,894
Governor-General	296	342	344	358	392
Audit	1,450	1,542	1,692	1,950	2,024
Public Service Board	1,658	1,736	1,838	2,134	2,420
Taxation Branch and Boards of Review	20,400	21,974	22,628	25,400	27,080
Bureau of Census and Statistics	4,376	6,648	5,572	6,276	7,346
Commonwealth Superannuation Board	254	288	362	422	498
Electoral Branch	1,388	2,220	1,568	2,530	2,772
News and Information Bureau	958	1,058	1,240	1,396	1,660
Other	32,224	34,808	37,186	(a)51,484	(a)59,330
<i>Total, legislature, etc.</i>	67,244	74,764	76,708	96,364	108,416
Immigration—					
Assisted migration	13,495	10,618	13,205	17,745	25,458
Other	7,947	8,374	8,361	8,397	9,306
<i>Total, immigration</i>	21,442	18,992	21,566	26,142	34,764
Regulation of trade and industry—					
Conciliation and Arbitration Commission, Industrial Court and Registrar	636	704	734	816	884
Patents, trade marks and designs	952	1,040	1,178	1,330	1,478
Inspection of goods for export	2,720	2,892	3,186	3,670	4,498
Other	1,220	240	3,240	3,466	3,380
<i>Total, regulation, etc.</i>	5,528	4,876	8,338	9,282	10,240
Other functions—					
National Library	706	926	1,034	1,374	1,622
High Commissioner's Office, United Kingdom	1,932	2,166	2,330	2,562	2,982
Other overseas representation	4,640	5,380	6,144	6,752	7,290
United Nations and Allied Organizations	2,528	5,474	2,396	3,864	3,288
Antarctic Division	1,528	1,462	1,628	1,668	1,902
Other	3,535	9,698	13,644	(a)15,936	(a) 8,776
<i>Total, other functions</i>	14,869	25,106	27,176	32,156	25,860
Not allocated to function—					
Superannuation contributions, n.e.i.	6,796	6,774	6,790	8,706	10,592
Other	7,654	7,396	1,558	686	416
<i>Total, not allocated</i>	14,450	14,170	8,348	9,392	11,008
Grand total	648,313	664,998	624,010	780,642	1,004,136

(a) Changes in departmental accounting procedures, which were introduced in 1963-64, affect comparability between years.

Capital expenditure on goods and services

In the following table details are given of capital expenditure on goods and services during each of the years 1960-61 to 1964-65. The table covers capital expenditure on goods and services from the Consolidated Revenue Fund for purposes other than defence and repatriation services.

**COMMONWEALTH CONSOLIDATED REVENUE FUND: CAPITAL EXPENDITURE
ON GOODS AND SERVICES, 1960-61 TO 1964-65**

(\$'000)

	1960-61	1961-62	1962-63	1963-64	1964-65
Business undertakings—					
Cultural and recreational facilities	2,858	5,694	7,660	6,548	9,246
Transport and communication—					
Postmaster-General	84,290	93,878	123,946	136,836	159,796
Railways	2,502	3,392	4,416	5,878	6,514
Other	160	488	388	708	960
Housing	8,612	8,938	9,564	8,814	11,620
Other	1,258	924	1,050	1,150	914
<i>Total, business undertakings</i>	<i>99,680</i>	<i>113,314</i>	<i>147,024</i>	<i>159,934</i>	<i>189,050</i>
Other—					
Education—					
Australian National University	2,088	4,040	2,896	4,678	5,392
Australian Capital Territory	3,210	3,084	3,350	3,712	3,956
<i>Total, education</i>	<i>5,298</i>	<i>7,124</i>	<i>6,246</i>	<i>8,390</i>	<i>9,348</i>
Health and welfare—					
Australian Capital Territory	590	718	1,608	2,148	2,584
Other health and welfare	2,102	1,540	804	952	926
<i>Total, health and welfare</i>	<i>2,692</i>	<i>2,258</i>	<i>2,412</i>	<i>3,100</i>	<i>3,510</i>
Repatriation	772	922	996	712	1,124
Development of resources and assistance to industry—					
Atomic Energy Commission	2,658	1,938	1,524	1,064	1,390
Australian Capital Territory	3,140	1,348	1,582	920	2,822
Commonwealth Scientific and Industrial Research Organization	2,640	2,054	1,936	3,610	6,396
Other development, etc.	1,060	1,352	1,768	1,684	1,580
<i>Total, development</i>	<i>9,498</i>	<i>6,692</i>	<i>6,810</i>	<i>7,278</i>	<i>12,188</i>
Civil aviation	11,690	8,796	9,688	11,578	17,394
Roads—					
Australian Capital Territory	4,318	6,060	5,932	5,388	6,450
Other roads	404	2,166	3,930	3,664	2,912
<i>Total, roads</i>	<i>4,722</i>	<i>8,226</i>	<i>9,862</i>	<i>9,052</i>	<i>9,362</i>
Housing					
<i>Total, housing</i>	<i>810</i>	<i>782</i>	<i>938</i>	<i>872</i>	<i>816</i>
Other functions—					
Australian Capital Territory	5,534	6,078	7,732	12,936	11,178
Papua and New Guinea	110	42	80	48	4
Other	8,208	12,576	11,194	12,276	13,874
<i>Total, other functions</i>	<i>13,852</i>	<i>18,696</i>	<i>19,006</i>	<i>25,260</i>	<i>25,056</i>
Not allocated to function					
<i>Total, not allocated</i>	<i>10,570</i>	<i>11,930</i>	<i>12,518</i>	<i>11,028</i>	<i>13,462</i>
Grand total	159,584	178,740	215,500	237,204	281,310

Expenditure on primary production—research and sales promotion, export funds, etc.

Expenditure under this item is classified in the table on page 780 to development of resources and assistance to industry as it includes the proceeds of special industry taxes and profits from marketing schemes which are paid to trust funds or other authorities for the purposes of the industries concerned. Information relating to the taxes levied is given in the table on page 774. Some details of expenditure from the trust funds are included in the table on page 783. Details of expenditure from the Consolidated Revenue Fund during the last five years are given in the following table.

**COMMONWEALTH CONSOLIDATED REVENUE FUND: EXPENDITURE ON
PRIMARY PRODUCTION—RESEARCH AND SALES PROMOTION,
EXPORT FUNDS, ETC., 1960-61 TO 1964-65**

(\$'000)

	1960-61	1961-62	1962-63	1963-64	1964-65
Research and sales promotion—					
Canned fruit (sales promotion)	54	107	84	101	64
Cattle and beef research	165	339	1,008	1,433	1,613
Dairy produce research	397	554	523	590	510
Dairy produce sales promotion	443	525	525	523	526
Tobacco industry research	249	338	183	401	364
Wheat research	523	468	595	638	720
Wool industry research . . . . .	..	..	..	1,594	..
Wool research	2,910	3,014	2,925	1,604	3,181
Wool use promotion	2,336	4,691	4,875	5,286	18,249
Export funds—					
Apple and pear	161	204	169	245	213
Canned fruits	117	132	131	185	170
Canned fruits excise . . . . .	..	..	..	279	1,044
Dairy produce	163	207	412	530	675
Dried fruits	68	107	89	102	165
Egg	120	68	36	57	78
Honey . . . . .	..	..	4	74	94
Meat	200	278	431	484	741
Wine	185	225	319	225	274
Other—					
Fisheries development	2	..	1	..	..
Other	9	4	1	1	2
Total	8,105	11,261	12,312	14,351	28,682

Commonwealth Consolidated Revenue Fund: receipts

Sources of receipts

The following table shows details of receipts from each source during the years 1960-61 to 1964-65.

**COMMONWEALTH CONSOLIDATED REVENUE FUND: SOURCES OF RECEIPTS
1960-61 TO 1964-65**

(\$'000)

Source	1960-61	1961-62	1962-63	1963-64	1964-65
Taxation	2,850,479	2,833,049	2,880,918	3,218,838	3,787,027
Business undertakings	307,735	316,779	342,400	375,777	423,948
Territories—					
Northern Territory	3,480	4,002	4,210	4,944	5,611
Australian Capital Territory	7,423	7,986	11,250	14,086	18,193
Cocos (Keeling) Islands	6	4	4	8	8
Total, Territories	10,909	11,992	15,464	19,038	23,813
Interest	29,176	34,008	43,524	46,852	48,394
Dividends or payments in the nature of a dividend	3,980	4,105	3,826	5,076	5,118
Repayments	2,048	4,822	7,007	11,532	8,897
Coinage	642	1,179	212	..	..
Defence	11,653	9,612	12,325	44,651	28,961
Air navigation charges	2,062	2,786	2,966	3,755	4,437
Quarantine and other health services	239	222	311	372	344
Patents, trade marks, etc.	953	1,163	1,211	1,281	1,315
Bankruptcy	285	338	362	405	430
Net profit on Australian note issue	25,861	31,502	25,561	26,983	30,521
Unrequied balances of trust accounts	4,107	7,049	9,400	25,182	8,472
Australian Aluminium Production Commission	5,000	500	500	500	500
Reserve Bank Reserve Fund	5,381	6,705	8,973	3,351	4,983
Commonwealth Banking Corporation	1,512	1,843	1,433	2,290	3,467
Other	14,535	15,430	14,379	23,493	37,551
Grand total	3,276,557	3,283,084	3,370,772	3,809,376	4,418,178

Further information on receipts of business undertakings and the Territories is included respectively in the chapters Transport and Communication and The Territories of Australia.

Commonwealth trust funds

The next table shows the opening and closing balances and receipts and expenditure of some of the more important trust funds of the Commonwealth for the year 1964-65, and the following table shows the totals for the last five years.

COMMONWEALTH TRUST FUNDS: RECEIPTS, EXPENDITURE AND BALANCES, 1964-65
(\$'000)

Fund	Balance at 30 June 1964	Year ended 30 June 1965		Balance at 30 June 1965
		Receipts	Expenditure	
Canadian Loan	14,986	563	500	15,049
Coal Mining Industry Long Service Leave	3,463	758	1,021	3,199
Coinage . . . . .	..	3,788	3,788	..
Defence Forces Retirement Benefits	52,506	19,749	9,582	62,673
Insurance Deposits	22,728	5,753	4,933	23,548
Imperial Pensions	855	12,498	12,960	393
International Development and Relief	337	660	476	520
Lend-Lease Settlement	611	19	341	288
Loan Consolidation and Investment Reserve	458,511	244,219	11,311	691,419
National Debt Sinking	371,113	192,624	261,193	302,544
National Welfare	418,382	894,564	890,366	422,581
Parliamentary Retiring Allowances	1,120	317	216	1,221
Post Office Stores and Services	8,300	150,941	156,105	3,136
Superannuation	231,731	58,908	28,996	261,643
Swiss Loan	33,630	1,116	..	34,746
Temple Society	1,433	52	7	1,478
Tobacco Industry	228	662	490	401
War Service Homes . . . . .	..	73,014	73,014	..
War Service Homes—Insurance	1,698	703	737	1,663
Wheat Prices Stabilization . . . . .	..	1,893	1,893	..
Wheat Research	1,773	1,304	1,200	1,877
Wine Research	853	38	38	853
Wool Research	13,920	3,681	6,580	11,021
Other	23,176	159,652	159,696	23,132
Total	1,661,353	1,827,477	1,625,444	1,863,386

COMMONWEALTH TRUST FUNDS: SUMMARY, 1960-61 TO 1964-65
(\$ million)

	1960-61	1961-62	1962-63	1963-64	1964-65
Balances brought forward	1,536	1,748	1,655	1,613	1,661
Receipts	2,119	1,432	1,443	1,546	1,827
Expenditure	1,907	1,525	1,485	1,498	1,625
Balance carried forward	1,748	1,655	1,613	1,661	1,863

Commonwealth Loan Fund

Brief historical notes relating to the Commonwealth Loan Fund are given in earlier issues of the Year Book (*see* No. 37, page 640). The following tables show details for the years 1960-61 to 1964-65 of receipts by, and expenditure from, Commonwealth Loan Fund in respect of loans raised for both Commonwealth and State Governments. Information relating to the Commonwealth Government securities on issue is given in the division Government Securities on Issue, Commonwealth and States of this chapter.

Loans raised for the Commonwealth

The following table shows the receipts by, and expenditure from, Commonwealth Loan Fund in respect of loans raised for the Commonwealth Government during the years 1960-61 to 1964-65.

**COMMONWEALTH LOAN FUND: LOANS RAISED FOR THE COMMONWEALTH
RECEIPTS AND EXPENDITURE, 1960-61 TO 1964-65**

(\$'000)

	1960-61	1961-62	1962-63	1963-64	1964-65
RECEIPTS					
Balance from 30 June	334	158	196	97	125
Loans raised in Australia—					
Stocks and bonds	59,616	82,000	57,831	143,919	87,905
Special bonds	13,467	21,054	38,972	26,352	34,342
Advance loan subscriptions	Dr. 1,571	2,749	22,814	Dr. 21,560	3,305
Treasury bills—Public (net)	Dr. 30,000	73,200	Dr. 117,400	Dr. 2,400	38,000
Treasury bills—Internal (investment of Trust Fund) (net)	35,200	5,400	77,800	39,400	33,400
Treasury notes . . . . .	..	..	138,980	13,590	Dr. 72,138
Peace savings certificates	3	3	2	2	2
Loans raised overseas—					
London—Stock and bonds	29,270	1	5,414	20,636	..
New York—Bonds	3,525	13,994	34,931	..	4,421
Loan—Qantas Empire Airways Limited	3,146	23,653	4,134	4,033	26,292
Loan—Australian National Airlines Commission	1,785	..	1,119	1,121	8,566
International Bank dollar loan . . . . .	..	..	28,472	24,232	21,151
Canadian bonds	2,879	..	..	..	..
Swiss loan	2,009	..	..	..	..
Netherlands loan . . . . .	..	1,772	..	..	..
<i>Total, loans raised</i>	<i>119,329</i>	<i>223,827</i>	<i>293,069</i>	<i>249,325</i>	<i>185,247</i>
Deduct—					
Expenses of flotation—					
Loans raised in Australia	Cr. 392	Cr. 318	1,804	Cr. 631	306
London loans	1,051	Cr. 1,051	85	317	..
New York loans	65	119	911	..	147
Canadian loans	66	Cr. 7	..	..	..
Swiss loans	123	1	..	..	..
Netherlands loan . . . . .	..	83	..	..	..
<i>Total, deductions</i>	<i>913</i>	<i>Cr. 1,172</i>	<i>2,799</i>	<i>Cr. 314</i>	<i>452</i>
<i>Total loan raisings less expenses of flotation</i>	<i>118,417</i>	<i>224,999</i>	<i>290,270</i>	<i>249,638</i>	<i>184,795</i>
<i>Grand total</i>	<i>118,750</i>	<i>225,157</i>	<i>290,466</i>	<i>249,736</i>	<i>184,920</i>
EXPENDITURE					
Financial assistance to States for housing—					
New South Wales	26,000	34,006	32,600	33,000	35,000
Victoria	20,600	27,054	25,700	26,500	27,000
Queensland	6,200	8,400	7,800	8,600	6,600
South Australia	11,600	18,072	18,982	19,400	20,500
Western Australia	6,000	7,412	6,940	6,800	7,200
Tasmania	4,000	5,856	5,200	6,000	6,400
<i>Total, States, housing</i>	<i>74,400</i>	<i>100,800</i>	<i>97,222</i>	<i>100,300</i>	<i>102,700</i>
Defence services . . . . .	..	47,281	132,141	77,431	..
War and repatriation services	4,054	3,154	1,214	8,525	7,234
Loan—Qantas	3,146	23,653	4,134	4,033	26,292
Loan—Australian National Airlines Commission	1,785	..	1,119	1,121	8,566
Mount Isa Railway Agreement . . . . .	..	7,500	11,917	12,100	3,016
Snowy Mountains Hydro-electric Authority . . . . .	..	..	26,200	23,402	19,600
Works and other purposes—Repayments	Cr. 104	Cr. 60	Cr. 33	Cr. 566	Cr. 93
Redemptions—					
Treasury bills—Internal . . . . .	..	25,800	..	..	..
Stock and bonds—Australia	7	5	9,299	9,085	..
Stock and bonds—London	29,272	..	..	14,180	..
Bonds—New York . . . . .	..	10,111	..	..	..
Special bonds	6,032	6,715	7,155	..	17,400
Balance at 30 June	158	196	97	125	205
<i>Grand total</i>	<i>118,750</i>	<i>225,157</i>	<i>290,466</i>	<i>249,736</i>	<i>184,920</i>

Loans raised for the States

The following table shows the receipts by, and expenditure from, Commonwealth Loan Fund in respect of loans raised for the State Governments during the years 1960-61 to 1964-65.

**COMMONWEALTH LOAN FUND: LOANS RAISED FOR THE STATES
RECEIPTS AND EXPENDITURE, 1960-61 TO 1964-65
(\$'000)**

	1960-61	1961-62	1962-63	1963-64	1964-65
RECEIPTS					
Balance from 30 June . . . . .	..	..	..	..	..
Loans raised in Australia—					
Stock and bonds	327,677	337,257	361,622	363,889	457,159
Special bonds	24,728	33,682	39,192	65,207	53,124
Loans raised overseas—					
London—Stock and bonds	29,493	..	32,221	28,762	..
New York—Bonds	18,268	34,021	39,287	..	17,686
Canadian bonds	14,919	..	..	..	..
Swiss bonds	10,412	..	..	..	..
Netherlands bonds . . . . .	..	8,142	..	..	..
Total	425,498	413,101	472,323	457,857	527,969
EXPENDITURE					
Payments of loan proceeds to the States—					
New South Wales	121,388	124,596	130,808	140,020	149,470
Victoria	97,238	99,091	105,360	111,728	120,954
Queensland	42,150	46,300	42,576	42,412	48,000
South Australia	51,934	50,296	51,458	55,184	59,020
Western Australia	37,280	39,162	41,044	44,006	46,968
Tasmania	26,890	28,996	29,768	30,318	32,244
Total payments to States	376,880	388,441	401,014	423,668	456,656
Redemptions—					
Stock and bonds—Australia	9,963	..	54,620	24,384	30,000
Special bonds	9,162	8,478	8,543	9,806	16,238
London	29,493	..	8,146	..	25,075
New York . . . . .	..	16,183	..	..	..
Balance at 30 June . . . . .	..	..	..	..	..
Grand total	425,498	413,101	472,323	457,857	527,969

STATE FINANCE**Functions of State Governments**

In comparing the financial results of the States allowances must be made for the various functions discharged by the respective State Governments and for local conditions in each case. Direct comparisons of the revenue, expenditure and debt of the individual States are difficult, owing to the fact that functions which in one State are assumed by the central government are in another delegated to local government or semi-governmental bodies which are vested with certain defined borrowing powers and whose financial transactions are not included with those of the central government. Care is needed, therefore, in making comparisons, and the particulars contained in this chapter should be read with those contained in the chapter Local Government.

Accounts of State Governments

The various financial transactions of the States are in each case concerned mainly with one or other of three funds—the Consolidated Revenue Fund the Trust Fund and the Loan Fund.

All revenue (except certain items paid into special funds) collected by a State is paid into its *Consolidated Revenue Fund*, from which payments are made under authority of an annual Appropriation Act passed by the legislature, or by a permanent appropriation under a special Act. Figures relating to New South Wales represent the transactions of the Consolidated Revenue Fund and the business undertakings included in the annual budget papers. These undertakings are: railways, tramways and omnibuses, and Sydney Harbour Trust Section of the Maritime Services Board. Adjustments have been made to the Budget figures, however, in order to eliminate duplications caused by inter-fund payments. Particulars for all other States relate to the transactions of the Consolidated Revenue Fund.

The *Trust Fund* comprises all moneys held in trust by the Government and includes such items as superannuation funds, road funds, insurance companies' deposits, etc.

The *Loan Fund* is debited with all loan moneys raised for the State and credited with the expenditure therefrom on public works or other purposes.

Inter-relation of Commonwealth and State finances

A statement in some detail, covering the inter-relation of Commonwealth and State finances during the period from the inception of federation to the passing of the *Financial Agreement Act* 1928, was published in Year Book No. 22, pages 379-80. Changes in the financial relations between the Commonwealth and States since the passing of the Financial Agreement Act have been described in issues of the Year Book from year to year.

State Consolidated Revenue Fund expenditure

The principal heads of State expenditure from Consolidated Revenue Funds are: (a) interest, exchange and debt redemption charges in connection with debt; (b) working expenses of business undertakings; (c) education; (d) health and charitable expenditure; (e) justice; (f) police; (g) penal establishments; and (h) all other expenditure, including expenditure on public works, lands and surveys, agriculture and forestry, legislative and general administration, pensions, and miscellaneous.

The working expenses of railways and tramways are the largest item of State Government expenditure. In 1964-65 the working expenses of the railways, tramways and omnibuses were 22.6 per cent of the total expenditure from the State Consolidated Revenue Funds; education, 23.3 per cent; debt charges, 17.5 per cent; charitable, public health and hospitals, 13.3 per cent; and law, order and public safety, 5.9 per cent.

Total expenditure

The total expenditure from the Consolidated Revenue Funds of the several States and the expenditure per head of population during each of the years 1960-61 to 1964-65 are shown in the following table.

STATE CONSOLIDATED REVENUE FUND EXPENDITURE, 1960-61 TO 1964-65

Year	N.S.W.(a)	Vic.	Qld	S.A.	W.A.	Tas.	Total
EXPENDITURE (\$'000)							
1960-61 .	565,403	369,863	218,870	161,582	141,075	55,985	1,512,779
1961-62 .	597,489	392,597	234,431	177,192	151,780	63,302	1,616,790
1962-63 .	624,888	414,150	246,928	186,789	158,687	64,301	1,695,742
1963-64 .	683,992	444,874	260,454	199,755	170,681	69,577	1,829,333
1964-65 .	734,160	480,668	271,215	216,803	184,840	77,447	1,965,133

PER HEAD OF POPULATION

	(\$)						
1960-61 .	145.88	127.83	145.55	168.82	193.31	159.92	146.73
1961-62 .	151.33	132.67	153.53	180.79	203.51	177.47	153.73
1962-63 .	155.62	137.05	159.17	186.98	207.59	177.57	158.27
1963-64 .	167.38	143.93	165.53	195.82	218.21	190.00	167.53
1964-65 .	176.58	151.67	169.91	207.81	231.76	210.40	176.53

(a) See above for transactions included.

Details of expenditure

The following tables show the total expenditure and expenditure per head of population for each of the principal items. For further information on the finances of the various types of business undertakings in the States see the chapters Transport and Communication and Local Government of this Year Book.

STATE CONSOLIDATED REVENUE FUND EXPENDITURE: DETAILS, 1964-65

	N.S.W.(a)	Vic.	Qld	S.A.	W.A.	Tas.(b)	Total
EXPENDITURE (\$'000)							
Debt (interest, exchange, debt redemption, etc.)	95,722	89,057	46,732	52,410	35,988	24,081	343,990
Railways	172,936	92,866	82,245	28,786	36,846	2,490	416,169
Tramways and omnibuses	25,989	..	..	..	1,029	760	27,778
Harbours and rivers, etc. . . .	13,908	1,408	..	3,256	2,016	63	20,652
Water supply, sewerage, irrigation and drainage . . . .	..	8,926	..	9,948	5,407	560	24,840
Other business and industrial undertakings . . . . .	..	1,240	49	1,135	3,759	77	6,260
Education	178,515	125,199	51,369	49,074	35,452	17,723	457,333
Health and charitable	89,435	65,850	38,893	29,041	26,776	10,514	260,508
Justice	12,003	4,730	3,689	1,517	1,451	796	24,187
Police	26,708	20,068	11,698	6,500	5,331	2,675	72,981
Penal establishments	6,241	3,003	1,346	1,587	1,384	644	14,204
Public safety	1,710	83	1,362	338	387	157	4,038
All other expenditure	110,994	68,238	33,832	33,211	29,012	16,907	292,194
Total	734,160	480,668	271,215	216,803	184,840	77,447	1,965,133

PER HEAD OF POPULATION
(\$)

Debt (interest, exchange, debt redemption, etc.)	23.02	28.10	29.28	50.24	45.12	65.42	30.90
Railways	41.60	29.30	51.52	27.57	46.20	6.76	37.39
Tramways and omnibuses	6.25	..	..	..	1.29	2.06	2.50
Harbours and rivers, etc. . . .	3.35	0.44	..	3.12	2.53	0.17	1.86
Water supply, sewerage, irrigation and drainage . . . .	..	2.82	..	9.54	6.78	1.52	2.23
Other business and industrial undertakings . . . . .	..	0.39	0.03	1.09	4.71	0.19	0.56
Education	42.94	39.50	32.18	47.04	44.45	48.15	41.08
Health and charitable	21.51	20.78	24.37	27.84	33.57	28.56	23.40
Justice	2.89	1.49	2.31	1.45	1.83	2.16	2.17
Police	6.42	6.33	7.33	6.23	6.68	7.27	6.56
Penal establishments	1.50	0.95	0.84	1.52	1.74	1.75	1.28
Public safety	0.41	0.03	0.85	0.32	0.48	0.43	0.36
All other expenditure	26.70	21.53	21.20	31.85	36.38	45.95	26.25
Total	176.58	151.67	169.91	207.81	231.76	210.40	176.53

(a) See page 786 for transactions included. (b) Tasmanian transport services are under the separate control of semi-governmental authorities. Figures shown for relevant items represent payments to the authorities.

TOTAL STATE CONSOLIDATED REVENUE FUND EXPENDITURE: DETAILS
1960-61 TO 1964-65
(\$'000)

	1960-61	1961-62	1962-63	1963-64	1964-65
Debt (interest, exchange, debt redemption, etc.)	250,433	274,909	301,723	320,403	343,990
Railways, tramways and omnibuses (working expenses)	397,556	400,363	397,940	420,585	443,947
Harbours and rivers, etc.	12,627	15,847	15,985	19,035	20,652
Water supply, sewerage, irrigation and drainage	22,421	25,374	25,706	26,313	24,840
Other business and industrial undertakings	5,530	5,386	5,492	5,187	6,260
Education	298,696	328,004	359,053	401,009	457,333
Health and charitable	211,989	226,568	231,051	239,167	260,508
Justice	18,899	20,022	19,910	21,749	24,187
Police	56,278	59,607	62,961	68,008	72,981
Penal establishments	10,621	11,714	12,223	13,054	14,204
Public safety	2,836	3,345	3,773	3,935	4,038
All other expenditure	224,893	245,653	259,925	290,887	292,194
Total	1,512,779	1,616,790	1,695,742	1,829,333	1,965,133

State Consolidated Revenue Fund receipts

The principal sources of State revenue are: (a) taxation; (b) the business undertakings controlled by the State Governments; (c) sale of and rental from crown lands; (d) interest on advances; (e) payments by the Commonwealth Government under the Financial Agreements, Special Grants and Financial Assistance Acts, etc.; (f) Commonwealth National Welfare Fund payments; and (g) miscellaneous sources, comprising fines, fees, etc.

Of these sources, that yielding the largest revenue to the Consolidated Revenue Funds for the States as a whole in the year 1964-65 was Commonwealth payments under financial assistance and other grants (37.9 per cent of the total revenue). Next in magnitude was the group of business undertakings (28.9 per cent), the principal contributors being the Government railways and tramways, followed by taxation receipts (18.1 per cent). More than one-quarter of the total State taxation collections are not paid into Consolidated Revenue Funds, however, but into special funds (*see* pages 790 and 792). Of the remaining sources of revenue, interest (n.e.i.) constituted 4.3 per cent, land revenue 2.9 per cent, and National Welfare Fund payments 1.0 per cent.

Total receipts

The following table shows particulars of the total receipts and the receipts per head of population of the Consolidated Revenue Funds of the several States.

STATE CONSOLIDATED REVENUE FUND RECEIPTS
1960-61 TO 1964-65

Year	N.S.W.(a)	Vic.	Qld	S.A.	W.A.	Tas.	Total
RECEIPTS (\$'000)							
1960-61 . . .	564,727	370,203	217,634	163,959	138,665	55,590	1,510,778
1961-62 . . .	591,223	392,618	234,650	178,205	149,852	62,585	1,609,133
1962-63 . . .	625,260	414,151	246,983	187,368	157,182	63,318	1,694,262
1963-64 . . .	684,535	444,368	260,897	203,006	167,888	68,391	1,829,087
1964-65 . . .	729,091	480,668	267,139	214,181	180,143	75,828	1,947,050

PER HEAD OF POPULATION
(\$)

1960-61 . . .	145.70	127.95	144.73	171.30	190.01	158.79	146.53
1961-62 . . .	149.74	132.68	153.67	181.82	200.93	175.46	153.00
1962-63 . . .	155.71	137.05	159.21	187.56	205.62	174.86	158.13
1963-64 . . .	167.51	143.76	165.82	199.01	214.63	186.77	167.51
1964-65 . . .	175.36	151.67	167.36	205.30	225.87	206.01	174.91

(a) See page 786 for transactions included.

Sources of revenue

Classifying the revenue of the several States in the manner indicated on page 788, particulars for the year 1964-65 were as follows.

STATE CONSOLIDATED REVENUE FUND RECEIPTS
BY SOURCES, 1964-65

Source of revenue	N.S.W. (a)	Vic.	Qld	S.A.	W.A.	Tas. (b)	Total
RECEIPTS (\$'000)							
Taxation(c)	130,330	115,642	39,771	34,901	20,271	10,677	351,592
Business undertakings	255,024	127,416	79,813	57,256	42,631	348	562,487
Lands	29,798	7,933	10,713	2,193	4,107	1,715	56,458
Interest, n.e.i.	7,332	19,064	13,733	18,148	11,734	12,752	82,764
Commonwealth grants(d)—							
Financial assistance	230,537	171,750	101,111	78,155	70,498	29,297	681,349
Other(e)	6,364	4,344	5,589	6,515	18,067	15,134	56,013
Commonwealth National							
Welfare Fund payments(f)	10,828	3,527	1,634	2,222	140	800	19,150
Miscellaneous	58,877	30,993	14,773	14,790	12,696	5,107	137,237
Total	729,091	480,668	267,139	214,181	180,143	75,828	1,947,050

PER HEAD OF POPULATION
(\$)

Taxation(c)	31.35	36.49	24.92	33.45	25.42	29.01	31.58
Business undertakings	61.34	40.20	50.00	54.88	53.45	0.95	50.53
Lands	7.17	2.50	6.71	2.10	5.15	4.66	5.07
Interest, n.e.i.	1.76	6.02	8.60	17.40	14.71	34.64	7.43
Commonwealth grants(d)—							
Financial assistance	55.45	54.19	63.34	74.91	88.39	79.59	61.21
Other(e)	1.53	1.37	3.52	6.24	22.65	41.12	5.03
Commonwealth National							
Welfare Fund payments(f)	2.60	1.11	1.02	2.13	0.18	2.17	1.72
Miscellaneous	14.16	9.78	9.25	14.18	15.92	13.87	12.33
Total	175.36	151.67	167.36	205.30	225.87	206.01	174.91

(a) See page 786. (b) Tasmanian transport services are under the separate control of semi-governmental authorities. (c) In all States certain taxation collections are not paid into Consolidated Revenue Fund. For total collections see next page. (d) Excludes Commonwealth payments paid to trust funds. (e) Includes payments under Financial Agreement, special grants, additional financial assistance, grants to universities, etc. (f) Consolidated Revenue Fund receipts only. Excludes payments to Trust Funds.

State receipts from taxation

In the tables on taxation collections in these paragraphs the collections have been grouped according to the nature of the tax rather than the method of collection. For example, stamp duties on betting tickets and bookmakers' licences have been included under Racing instead of under Stamp duties and Licences respectively.

Net taxation collections

The following tables show, for the year 1964-65, details of the collections by each State Government from the various types of tax in operation, irrespective of whether such moneys have been paid into the Consolidated Revenue Funds or not. For this reason the particulars hereunder differ from those shown in the tables relating to the Consolidated Revenue Funds and present a comprehensive statement of all taxation collections by the Government in each State.

STATE RECEIPTS FROM TAXATION: NET COLLECTIONS(a), BY TYPE OF TAX
1964-65
(\$'000)

Tax	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
Motor—							
Registration fees and taxes	35,950	24,244	15,531	11,857	7,496	3,318	98,396
Drivers', etc., licences	6,771	1,797	809	921	785	271	11,354
Other	17,618	14,007	8,523	45	1,540	348	42,081
<i>Total, motor</i>	<i>60,338</i>	<i>40,048</i>	<i>24,863</i>	<i>12,824</i>	<i>9,821</i>	<i>3,937</i>	<i>151,831</i>
Probate and succession duties	38,318	31,614	9,871	6,604	3,030	2,006	91,443
Stamp duties, n.e.i.	39,988	34,398	12,546	8,636	7,678	2,629	105,876
Land	29,717	19,725	3,784	4,969	2,892	1,678	62,765
Liquor	11,285	7,524	3,718	1,095	1,928	630	26,179
Lotteries . . . . .	..	6,717	737	..	..	..	7,454
Racing	7,272	10,425	3,339	2,592	2,697	1,015	27,340
Poker machine licence fees	13,666	..	..	..	..	..	13,666
Licences, n.e.i.	425	1,186	210	195	595	24	2,635
Other	17	1	5,818	341	959	..	7,136
Grand total	201,026	151,640	64,887	37,255	29,600	11,918	496,326

(a) From all sources of taxation irrespective of whether paid to Consolidated Revenue Fund or to other funds.

Of the total taxation collections detailed above, the following were paid into special funds.

STATE RECEIPTS FROM TAXATION: PAYMENTS INTO SPECIAL FUNDS, 1964-65
(\$'000)

Tax	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
Motor	56,932	34,856	19,029	1,426	8,370	784	121,398
Stamp duties, n.e.i. . . . .	..	546	..	..	..	..	546
Liquor . . . . .	..	385	150	..	..	..	535
Racing	98	..	349	928	..	458	1,832
Poker machine licence fees	13,666	..	..	..	..	..	13,666
Other . . . . .	..	211	5,587	..	959	..	6,756
Total	70,696	35,998	25,115	2,354	9,329	1,241	144,734

The table hereunder shows, for the year 1964-65, the proportions of collections under individual classes of tax to total taxation revenue.

STATE RECEIPTS FROM TAXATION: PROPORTIONS OF INDIVIDUAL TAXES TO TOTAL, 1964-65
(Per cent)

Tax	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
Motor	30.02	26.41	38.32	34.42	33.18	33.03	30.59
Probate and succession duties . .	19.06	20.85	15.21	17.73	10.24	16.83	18.42
Stamp duties, n.e.i.	19.89	22.68	19.34	23.18	25.94	22.06	21.33
Land	14.78	13.01	5.83	13.34	9.77	14.08	12.65
Liquor	5.61	4.96	5.73	2.94	6.51	5.29	5.27
Lotteries . . . . .	..	4.43	1.14	..	..	..	1.50
Racing	3.62	6.88	5.15	6.96	9.11	8.52	5.51
Poker machine licence fees	6.80	..	..	..	..	..	2.75
Licences, n.e.i.	0.21	0.78	0.32	0.52	2.01	0.20	0.53
Other	0.01	..	8.97	0.91	3.24	..	1.43
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00

The total amounts and the amounts per head raised from all sources of taxation by the several State Governments, including amounts not paid into the Consolidated Revenue Funds, during the years 1960-61 to 1964-65 are shown in the following tables.

STATE RECEIPTS FROM TAXATION: NET COLLECTIONS, 1960-61 TO 1964-65

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
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NET COLLECTIONS
(\$'000)

1960-61	127,160	111,892	45,403	24,203	19,036	9,162	336,855
1961-62	134,866	115,638	48,549	25,902	20,400	9,609	354,963
1962-63	156,182	121,964	54,046	27,691	22,996	10,184	393,062
1963-64	185,919	135,757	60,582	30,619	26,713	11,110	450,701
1964-65	201,026	151,640	64,887	37,255	29,600	11,918	496,326

PER HEAD OF POPULATION
(\$)

1960-61	32.81	38.67	30.19	25.29	26.09	26.17	32.67
1961-62	34.16	39.08	31.80	26.43	27.35	26.94	33.75
1962-63	38.90	40.36	34.84	27.72	30.08	28.12	36.69
1963-64	45.50	43.92	38.50	30.02	34.15	30.34	41.28
1964-65	48.35	47.85	40.65	35.71	37.11	32.38	44.59

STATE RECEIPTS FROM TAXATION: TOTAL NET COLLECTIONS(a), BY TYPE OF TAX, 1960-61 TO 1964-65
(\$'000)

Tax	1960-61	1961-62	1962-63	1963-64	1964-65
Motor	97,850	103,216	115,518	136,714	151,831
Probate and succession duties	67,755	75,166	80,028	91,090	91,443
Stamp duties, n.e.i.	75,775	73,056	81,757	93,080	105,876
Land	39,830	45,321	49,410	55,134	62,765
Liquor	18,105	19,722	22,203	23,784	26,179
Lotteries	7,217	7,017	7,090	7,310	7,454
Racing	17,053	18,230	21,198	23,361	27,340
Entertainments	2,843	2,180	941	53	..
Poker machine licence fees	3,354	3,544	6,558	11,268	13,666
Licences, n.e.i., and all other	7,075	7,511	8,360	8,906	9,772
Total	336,855	354,963	393,062	450,701	496,326

(a) From all sources of taxation irrespective of whether paid to Consolidated Revenue or to other funds.

Taxation collections paid to special funds

Details of taxation collections paid into special funds and included in the foregoing table are shown below.

STATE RECEIPTS FROM TAXATION: TOTAL PAYMENTS INTO SPECIAL FUNDS, 1960-61 TO 1964-65
(\$'000)

Tax	1960-61	1961-62	1962-63	1963-64	1964-65
Motor	82,263	86,120	96,872	111,830	121,398
Stamp duties, n.e.i.	419	401	484	508	546
Liquor	363	341	464	540	535
Racing	1,142	1,097	1,356	1,481	1,832
Poker machine licence fees	3,354	3,544	6,558	11,268	13,666
Other	4,812	5,080	5,527	5,948	6,756
Total	92,353	96,583	111,262	131,575	144,734

**State Consolidated Revenue Fund receipts
from business undertakings**

A considerable proportion of State gross revenue is made up of receipts from business undertakings under the control of the Governments. The most important of these are railways and tramways, harbour works, water supply and sewerage, and electricity supply. In addition, State batteries for the treatment of auriferous ores in Western Australia and various minor revenue-producing services rendered by the Governments of all States are included. For the year 1964-65 the receipts from these sources was \$562,487,000 or 28.9 per cent of the receipts from all sources.

**STATE CONSOLIDATED REVENUE FUND: RECEIPTS FROM BUSINESS
UNDERTAKINGS, BY SOURCE, 1964-65**
(\$'000)

Source	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.(a)	Total
Railways(b)	213,258	102,027	79,813	29,572	36,381	..	461,052
Tramways and omnibuses	24,749		..			..	24,749
Harbours, rivers, lights	17,017	(c) 2,408	..	6,126	1,820	..	27,371
Water supply, sewerage, irrigation and drainage	..	11,865	..	18,556	2,906	98	33,424
Electricity supply	..	9,964	..			..	9,964
Other	..	1,152	..	3,002	1,524	250	5,928
Total	255,024	127,416	79,813	57,256	42,631	348	562,487

(a) Tasmanian transport services are under the separate control of semi-governmental authorities.
(b) The following contributions to railways revenue from Consolidated Revenue Fund are excluded—New South Wales, \$1,600,000; South Australia, \$8,000,000. (c) Includes Harbour Trust Fund contribution, \$1,773,000.

**STATE CONSOLIDATED REVENUE FUND
RECEIPTS FROM BUSINESS UNDERTAKINGS, 1960-61 TO 1964-65**

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas. (a)	Total
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RECEIPTS
(\$'000)

1960-61	214,252	103,989	70,795	45,879	42,151	95	477,162
1961-62	215,080	106,449	70,144	48,897	44,077	223	484,870
1962-63	220,965	108,401	73,267	49,927	45,103	163	497,826
1963-64	242,824	115,715	81,124	54,904	47,175	236	541,978
1964-65	255,024	127,416	79,813	57,256	42,631	348	562,487

PER HEAD OF POPULATION
(\$)

1960-61	55.28	35.94	47.08	47.94	57.76	0.28	46.28
1961-62	54.48	35.98	45.94	49.90	59.10	0.62	46.10
1962-63	55.02	35.88	47.22	49.98	59.00	0.46	46.46
1963-64	59.42	37.44	41.56	53.82	60.30	0.64	49.64
1964-65	61.34	40.20	50.00	54.88	53.45	0.95	50.53

(a) Tasmanian transport services are under the separate control of semi-governmental authorities.

In the table below particulars of total State receipts from business undertakings for the various types of undertakings are shown for the years 1960-61 to 1964-65.

**STATE CONSOLIDATED REVENUE FUND: TOTAL RECEIPTS FROM BUSINESS
UNDERTAKINGS, BY SOURCE, 1960-61 TO 1964-65**
(\$'000)

Source	1960-61	1961-62	1962-63	1963-64	1964-65
Railways, tramways and omnibuses	420,245	419,711	429,633	465,557	485,800
Harbour services	17,405	21,340	21,480	25,058	27,371
Water supply, sewerage, irrigation and drainage	29,991	32,767	34,801	38,548	33,424
Other	9,521	11,053	11,911	12,815	15,892
Total	477,162	484,870	497,826	541,978	562,487

For further information on the finances of the various types of business undertakings in the States see the chapters Transport and Communication and Local Government of this Year Book.

Other State Consolidated Revenue Fund receipts

State land receipts

The receipts from the sale and rental of Crown lands have, with few exceptions, been treated from the earliest times as forming part of the Consolidated Revenue Funds, and have been applied to meet ordinary expenses. The following table shows the revenue from sales and rentals of Crown lands for the year 1964-65.

STATE CONSOLIDATED REVENUE FUND LAND RECEIPTS, BY SOURCE
1964-65
(\$'000)

Source	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
Sales	1,776	430	1,128	469	248	94	4,145
Conditional purchases	438	..	..	23	401	..	861
Rentals(a)	24,333	1,870	8,778	775	882	109	36,747
Forestry	2,972	5,153	..	..	2,577	1,499	12,200
Other	279	479	807	927	..	14	2,505
Total	29,798	7,933	10,713	2,193	4,107	1,715	56,458

(a) Includes mining royalties, rents, etc.

The total land receipts for all States for the years 1960-61 to 1964-65 respectively were: \$30,537,000, \$31,572,000, \$32,725,000, \$38,478,000, and \$56,458,000.

State receipts from Commonwealth grants

Commonwealth grants to the States represent a very large proportion of the States' receipts. In 1964-65 the total amount (excluding sundry minor items) paid to the Consolidated Revenue Funds of the States was \$737,362,000 (37.9 per cent). Details were as follows: contribution towards interest on States' debts under the Financial Agreement, \$15,170,000; special grants to the States of Western Australia and Tasmania, \$31,720,000; financial assistance, \$681,349,000; grants to universities, \$8,477,000; and other grants, \$646,000. In addition to these, the States receive a number of other grants which are paid to Trust Funds. The main items in this class are the contribution to the sinking fund on States' debts (\$16,646,000 in 1964-65) paid to the National Debt Sinking Fund, grants for Commonwealth Aid Roads (\$130,000,000 in 1964-65), and grants for universities (\$32,797,000 in 1964-65) paid to State Trust Funds. More detailed information concerning Commonwealth grants to the States is given on pages 763-6.

State receipts from Commonwealth National Welfare Fund

The States also receive payments from the Commonwealth in respect of hospital and pharmaceutical benefits, milk for school children, and reimbursement of maintenance expenditure on tuberculosis sanatoriums. These receipts are paid into Consolidated Revenue Funds or Trust Funds according to the varying accounting procedures in the States. In 1964-65 the total amount paid to State Consolidated Revenue Funds was \$19,150,000 (1.0 per cent). This amount was made up of hospital benefits, \$2,667,000; pharmaceutical benefits, \$4,495,000; milk for school children, \$2,881,000; tuberculosis—reimbursement of maintenance expenditure, \$8,447,000; other, \$660,000.

State surplus revenue

The following table shows for each of the years 1960-61 to 1964-65 the total amount and amount per head of population of the surplus or deficit of each State.

STATE SURPLUS REVENUE, 1960-61 TO 1964-65

Year	N.S.W.(a)	Vic.	Qld	S.A.	W.A.	Tas.	Total
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TOTAL AMOUNT
(\$'000)

1960-61 . .	-676	340	-1,236	2,376	-2,409	-395	-2,000
1961-62 . .	-6,266	21	219	1,013	-1,928	-717	-7,656
1962-63 . .	372	1	55	580	-1,506	-983	-1,480
1963-64 . .	544	-505	443	3,251	-2,792	-1,185	-246
1964-65 . .	-5,069	..	-4,076	-2,622	-4,695	-1,619	-18,083

PER HEAD OF POPULATION
(\$)

1960-61 . .	-0.17	0.12	-0.82	2.48	-3.30	-1.13	-0.19
1961-62 . .	-1.59	0.01	0.14	1.03	-2.59	-2.01	-0.73
1962-63 . .	0.09	..	0.04	0.58	-1.97	-2.72	-0.14
1963-64 . .	0.13	-0.16	0.28	3.19	-3.57	-3.24	-0.02
1964-65 . .	-1.22	..	-2.55	-2.51	-5.89	-4.40	-1.62

(a) See page 786.

Minus sign (-) indicates deficit.

State Loan Funds

The principal purpose of State public borrowing is to assist in financing the development of the resources of the country, e.g. the establishment and operation of railway systems and electricity undertakings, construction of roads and water and sewerage works, and improvements to harbour and rivers.

Statements relating to 'gross' loan expenditure are shown on page 796. Gross expenditure represents the amounts disbursed during each year. Details of 'net' loan expenditure, i.e. gross expenditure less any credits to the Loan Fund during the year on account of repayments of advances to local governing bodies, settlers, etc., the sale of assets, and transfers from other funds, may be found in the annual bulletin *State, Territory and Local Government Authorities' Finance and Government Securities*. Such moneys are credited to the Loan Fund in the year of repayment irrespective of when the advance was made.

Gross loan expenditure

Particulars of gross loan expenditure on works, services, etc., are shown in the following tables.

STATE GROSS LOAN EXPENDITURE ON WORKS, SERVICES, ETC.: DETAILS
1964-65
(\$'000)

	N.S.W.	Vic.(a)	Qld	S.A.	W.A.	Tas.	Total
Public works and services—							
Railways	18,500	15,501	15,234	6,400	9,199	600	65,433
Tramways and omnibuses					180		180
Roads	4,018	2,465	(b) —480	87	873		
Bridges	8,900	4,408	860			3,468	29,632
Harbours and rivers				2,205	2,830		
Lights and lighthouses				17,531		1,784	78,731
Water supply	18,675	17,720	258	11,561	9,790		
Sewerage	15,200	16,000	4,540	6,000	794	14,590	57,124
Electricity supply		80					80
Gas supply	68,314	54,817	20,529	21,700	20,452	9,070	194,882
Public buildings							
Loans and grants to local bodies	567	2,234	15,868		589	10	19,269
Housing(c)	1,860	1,675	4,300	600	1,540	40	10,015
Other public works, etc.	1,090	632		132	1,080	1,807	4,741
Primary production—							
Soldier settlement	41	78					119
Land for settlement	1,204	2,430	93	1		280	4,007
Advances to settlers		560		1,241		1,100	2,901
Water conservation, irrigation and drainage	16,723		5,989	1,892	1,332		25,936
Vermin-proof fencing		1	4	(d)	24		29
Agriculture	1,800				254	209	2,263
Agricultural Bank			5,100				5,100
Forestry	1,600	2,092	4,597	1,880	300	1,712	12,181
Mines and mineral resources	716	132	712	295	220	78	2,152
Other	1,233	3,366		453	384	155	5,591
Other purposes		(e) 2,258		1,618	894	764	5,533
Total	160,441	127,855	77,604	73,597	50,736	35,667	525,900

(a) Expenditure from loan funds and on account of loans; includes expenditure from loan funds, from Treasurer's Advance Account, and from State Loans Repayment Fund. (b) Represents transfer of liability on account of expenditure incurred in earlier years. The amount involved has been debited against the item Loans and grants to local bodies, and included in the expenditure shown for 1964-65. (c) Excludes expenditure from Commonwealth loans under Commonwealth-State Housing Agreement. (d) Included in item Advances to settlers. (e) Includes Rural Finance and Settlement Commission, for advances to rural industries, \$1,320,000.

STATE GROSS LOAN EXPENDITURE ON WORKS, SERVICES, ETC.
1960-61 TO 1964-65

Year	N.S.W.	Vic.(a)	Qld	S.A.	W.A.	Tas.	Total
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GROSS LOAN EXPENDITURE
(\$'000)

1960-61	130,364	103,410	59,372	62,770	38,705	33,534	428,154
1961-62	135,040	106,834	61,377	61,310	41,545	32,191	438,297
1962-63	140,661	110,665	62,862	59,602	44,310	32,914	451,014
1963-64	148,897	117,750	69,647	63,496	47,270	34,988	482,048
1964-65	160,441	127,855	77,604	73,597	50,736	35,667	525,900

PER HEAD OF POPULATION
(\$)

1960-61	33.63	35.74	39.48	65.58	53.04	95.79	41.53
1961-62	34.20	36.10	40.20	62.55	55.71	90.25	41.67
1962-63	35.03	36.62	40.52	59.66	57.97	90.89	42.10
1963-64	36.44	38.10	44.27	62.25	60.43	95.55	44.15
1964-65	38.59	40.34	48.62	70.54	63.62	96.90	47.24

(a) See footnote (a) to previous table.

Total loan expenditure

The preceding tables do not include particulars of expenditure on loan discounts and flotations, the funding of deficits, the retirement of treasury bills, and similar items of a nature other than works, services, etc. Summaries of the gross and net expenditure and repayments in respect of all loan purposes for the years 1962-63 to 1964-65 are shown in the next table.

STATE LOAN EXPENDITURE: SUMMARY, 1962-63 TO 1964-65
(**\$'000**)

—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
1962-63							
Works and services—							
Gross expenditure .	140,661	110,665	62,862	59,602	44,310	32,914	451,014
Net expenditure .	129,478	104,682	52,011	50,010	38,894	30,201	405,275
Repayments .	11,184	5,983	10,851	9,592	5,416	2,713	45,739
Other than works, etc.(a)—							
Gross expenditure .	—6,294	1,593	..	79	—240	300	—4,562
Net expenditure .	—6,294	1,593	1,400	..	—348	310	—3,339
Repayments .	..	..	—1,400	79	(b)107	—10	—1,224
Total loan expenditure—							
Gross .	134,368	112,258	62,862	59,681	44,070	33,214	446,452
Net .	123,184	106,275	53,411	50,010	38,546	30,511	401,937
Repayments .	11,184	5,983	9,451	9,671	5,524	2,703	44,515
1963-64							
Works and services—							
Gross expenditure .	148,897	117,750	69,647	63,496	47,270	34,988	482,048
Net expenditure .	139,267	111,495	58,694	52,849	43,100	32,712	438,117
Repayments .	9,629	6,255	10,953	10,647	4,170	2,276	43,931
Other than works, etc.(a)—							
Gross expenditure .	—640	1,000	1,500	100	623	234	2,818
Net expenditure .	—640	1,000	1,500	..	520	193	2,573
Repayments .	..	..	..	100	(b)103	42	245
Total loan expenditure—							
Gross .	148,256	118,751	71,147	63,596	47,893	35,222	484,866
Net .	138,627	112,496	60,194	52,849	43,620	32,905	440,690
Repayments .	9,629	6,255	10,953	10,747	4,273	2,317	44,176
1964-65							
Works and services—							
Gross expenditure .	160,441	127,855	77,604	73,597	50,736	35,667	525,900
Net expenditure .	148,320	120,267	65,421	62,554	46,779	33,306	476,646
Repayments .	12,121	7,588	12,184	11,042	3,957	2,361	49,254
Other than works, etc.(a)—							
Gross expenditure .	—3,562	611	1,500	43	293	113	—1,003
Net expenditure .	—3,562	611	1,500	..	179	46	—1,226
Repayments .	..	..	..	43	(b)114	67	223
Total loan expenditure—							
Gross .	156,879	128,465	79,104	73,639	51,029	35,780	524,898
Net .	144,758	120,878	66,921	62,554	46,958	33,352	475,420
Repayments .	12,121	7,588	12,184	11,085	4,071	2,428	49,477

(a) Includes exchange, discounts and flotation expenses, revenue and general cash deficits. (b) From Consolidated Revenue Fund.

Minus sign (—) indicates excess of repayments to loan fund.

Information relating to the government securities on issue on behalf of the States is given in the division on Government Securities on Issue: Commonwealth and States (*see* page 799).

COMMONWEALTH AND STATE FINANCE

Consolidated Revenue Fund expenditure and receipts

The following table shows the aggregate expenditure and receipts of the Consolidated Revenue Funds of the Commonwealth and States for each of the years 1960-61 to 1964-65. In the table the combined Commonwealth and State totals have been adjusted to exclude major duplications, but the separate Commonwealth and State figures are as shown in other divisions of this chapter. The items excluded from the total figures are: payments made by the Commonwealth to the States and included in the State Consolidated Revenue Funds on account of financial assistance grants in 1960-61 to 1964-65, interest under the Financial Agreement, special grants, special financial assistance, grants to universities, cattle tick control, Tuberculosis Act capital expenditure, National Welfare Fund payments, and estimated payments of pay-roll tax by the States to the Commonwealth. There are other relatively minor payments for which adjustments have not been made, and the adjusted figures are therefore still slightly overstated.

COMMONWEALTH AND STATE CONSOLIDATED REVENUE FUND EXPENDITURE AND RECEIPTS, 1960-61 TO 1964-65

Year	Expenditure			Receipts		
	Common-wealth	States	Total	Common-wealth	States	Total
	\$'000	\$'000	\$m	\$'000	\$'000	\$m
1960-61	3,276,557	1,512,779	4,172.5	3,276,557	1,510,778	4,170.5
1961-62	3,283,084	1,616,790	4,212.8	3,283,084	1,609,133	4,205.2
1962-63	3,370,772	1,695,742	4,347.5	3,370,772	1,694,262	4,346.1
1963-64	3,809,376	1,829,333	4,886.8	3,809,376	1,829,087	4,886.6
1964-65	4,418,178	1,965,173	5,606.3	4,418,178	1,947,050	5,588.2

Taxation collections

The following table shows the combined Commonwealth and State taxation collections and the amount per head of population for the years 1960-61 to 1964-65. Taxation collections by the State Governments which are not paid into the Consolidated Revenue Funds are included.

COMMONWEALTH AND STATE TAXATION: TOTAL NET COLLECTIONS(a) BY TYPE OF TAX, 1960-61 TO 1964-65

Tax	1960-61	1961-62	1962-63	1963-64	1964-65
NET COLLECTIONS (\$'000)					
Income taxes	1,614,532	1,656,300	1,621,181	1,874,484	2,295,607
Customs and excise duty	718,387	701,612	759,005	815,036	899,722
Sales tax	346,079	297,648	313,062	325,189	362,857
Land tax	39,830	45,321	49,410	55,134	62,765
Pay-roll tax	122,519	121,943	126,510	136,443	150,078
Estate, probate and succession duties	97,369	109,224	115,727	130,961	132,974
Stamp duties, n.e.i.	75,775	73,056	81,757	93,080	105,876
Motor taxes	97,850	103,216	115,518	136,714	151,831
Liquor taxes	18,105	19,722	22,203	23,784	26,179
Racing	17,053	18,230	21,198	23,361	27,340
Entertainments tax, n.e.i.	2,843	2,180	941	53	..
Licences, n.e.i. and other taxes(b)	36,993	39,560	47,469	55,298	68,127
Total—					
Commonwealth	2,850,479	2,833,049	2,880,918	3,218,838	3,787,030
States	336,855	354,963	393,062	450,701	496,326
Grand total	3,187,334	3,188,012	3,273,980	3,669,539	4,283,356

For footnotes, *see* next page.

COMMONWEALTH AND STATE TAXATION: TOTAL NET COLLECTIONS(a)
BY TYPE OF TAX, 1960-61 TO 1965-65—continued

Tax	1960-61	1961-62	1962-63	1963-64	1964-65
PER HEAD OF POPULATION (\$)					
Income taxes	155.38	156.16	149.96	170.00	204.07
Customs and excise duties	69.14	66.15	70.21	73.92	79.99
Sales tax	33.31	28.06	28.96	29.49	32.26
Land tax	3.83	4.27	4.57	5.00	5.58
Pay-roll tax	11.79	11.50	11.70	12.37	13.34
Estate, probate and succession duties	9.37	10.30	10.70	11.88	11.82
Stamp duties, n.e.i.	7.29	6.89	7.56	8.44	9.41
Motor taxes	9.42	9.73	10.69	12.40	13.50
Liquor taxes	1.74	1.86	2.05	2.16	2.33
Racing	1.64	1.72	1.96	2.12	2.43
Entertainments tax, n.e.i.	0.27	0.21	0.09	..	..
Licences, n.e.i., and other taxes(b)	3.56	3.73	4.39	5.01	6.05
Total—					
Commonwealth	274.32	267.11	266.48	291.91	336.68
States	32.67	33.75	36.69	41.28	44.59
Grand total	306.74	300.58	302.84	332.79	380.78

(a) For separate details of Commonwealth and State taxation collections, see pages 772 and 790-2.
 (b) Includes arrears of State income taxes.

GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH AND STATES

For the following reasons, Government Securities on Issue, as set out in the tables in this division, may not be aggregated without adjustment to indicate what is sometimes described as the 'public debt' or 'net public debt' of the Commonwealth and State Governments. There are forms of debt not evidenced by the issue of securities. Again, some of the securities included in the tables are held by the Governments themselves. For example, a State Government may hold temporarily, or even for long periods, securities issued by the Commonwealth Government. The Commonwealth Government itself, through such institutions as the National Debt Commission, or through the Trust Funds, holds large investments in securities issued, either directly by itself or on behalf of the States. In addition, some of the securities issued on behalf of the States and held by the Commonwealth Government represent the proceeds of overseas loans, securities for which were issued directly by the Commonwealth Government. From the point of view of the aggregate net debt of the Commonwealth and the States, it would thus involve duplication if the sum of the securities on issue were to be regarded as representing the 'net public debt'.

Under the Financial Agreement between the Commonwealth and the States in 1927 the Commonwealth Government accepted responsibility for the securities of the State Governments then on issue, and was empowered to arrange for all future borrowings on behalf of the Commonwealth and the States and to issue Commonwealth securities for all money borrowed. The Commonwealth is reimbursed by the States for interest, exchange, etc., paid on their behalf, and the securities are redeemed from the National Debt Sinking Fund to which both the Commonwealth and State Governments make contributions.

In the statistical tables relating to Government securities, details of securities on issue, annual interest liability and average rate of interest liability, except on pages 803-5, are shown in the currencies in which they are repayable or payable respectively. Australian currency equivalents for overseas loans have been calculated using International Monetary Fund par rates of exchange (and the calculated equivalent for Swiss francs) ruling at 30 June in each year shown. Rates of exchange to \$A at 30 June 1965 were as follows: £Sterling, 0.4000; United States dollars, 1.1200; Canadian dollars, 1.2108; Swiss francs, 4.89775; Netherlands guilders, 4.0544; German Deutsche marks, 4.4800.

The full text of the original Financial Agreement between the Commonwealth and the States was given in Year Book No. 31, page 21, a summary of the original Agreement as affected by the subsequent Agreements in later issues up to No. 37 (see pages 685-90), and a summary of the main provisions in further issues up to No. 50 (see pages 952-3).

Government securities on issue: Commonwealth and States

Government securities on issue, annual interest payable and average rate of interest

In the following tables details are given of government securities on issue on account of the Commonwealth and States, annual interest payable and average rates of interest.

GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH AND STATES 30 JUNE 1965

	Currency in which repayable							Total— Aus- tralian currency equiva- lents(a)
	Aus- tralian currency	Sterling	United States dollars	Can- adian dollars	Swiss francs	Nether- lands guilders	German Deutsche marks	
	\$A'000	£Stg'000	\$US '000	\$Can '000	Sw. fr. '000	f.'000	D.M. '000	\$A'000
For Commonwealth purposes	2,512,888	76,253	368,641	49,665	194,288	7,150	84,596	3,133,997
On account of States—								
New South Wales	2,050,277	102,772	101,133	4,922	15,833	10,383	..	2,407,364
Victoria	1,518,481	44,880	45,617	3,958	12,732	8,346	..	1,679,338
Queensland	771,706	45,778	33,110	1,986	6,391	4,250	..	919,706
South Australia	811,354	33,546	22,480	2,106	6,774	4,191	..	919,446
Western Australia	591,340	32,922	16,765	1,511	4,863	3,264	..	691,660
Tasmania	439,163	8,772	10,779	1,150	3,703	2,416	..	473,019
Total, States	6,182,321	268,670	229,884	15,633	50,296	32,850	..	7,090,533
Total, Commonwealth and States—								
Stock and bonds	7,802,802	339,675	343,726	29,292	240,000	40,000	..	9,041,948
Treasury bills, internal	632,400	..	..	..	..	..	..	632,400
Treasury notes	80,432	..	..	..	..	..	..	80,432
Treasury bills, public	116,000	..	..	..	..	..	..	116,000
International Bank loans	..	..	195,469	36,006	4,584	..	84,596	224,082
Commonwealth notes	..	..	59,330	..	..	..	..	52,973
Debentures	56,970	..	..	..	..	..	..	56,970
Balance of securities of States taken over by Commonwealth and still represented by State securities	..	4,241	..	..	..	..	..	10,603
Other	6,604	(b) 1,008	..	..	..	..	..	9,124
Grand total—								
Currencies in which repayable	8,695,208	344,924	598,525	65,298	244,584	40,000	84,596	..
Australian currency equivalents(a) \$A'000	8,695,208	862,309	534,397	53,930	49,938	9,866	18,883	10224530

(a) For rates of exchange to \$A ruling at 30 June 1965, see page 680. (b) State securities issued by the Government of Western Australia to meet the costs of acquisition of the Midland Railway Company of Western Australia Ltd.

GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH AND STATES ANNUAL INTEREST PAYABLE, 30 JUNE 1965

	Currency in which payable							Total— Aus- tralian currency equiva- lents(a)
	Aus- tralian currency	Sterling	United States dollars	Can- adian dollars	Swiss francs	Nether- lands guilders	German Deutsche marks	
	\$A'000	£Stg'000	\$US '000	\$Can '000	Sw. fr. '000	f.'000	D.M. '000	\$A'000
For Commonwealth purposes	89,540	3,608	18,437	2,297	7,982	358	4,801	119,709
On account of States—								
New South Wales	93,462	4,706	5,056	283	712	519	..	110,250
Victoria	70,340	1,941	2,294	228	573	417	..	77,650
Queensland	34,614	1,712	1,560	114	287	213	..	40,492
South Australia	37,338	1,191	1,125	121	305	210	..	41,534
Western Australia	27,156	1,131	836	87	219	163	..	30,886
Tasmania	20,208	353	557	66	167	121	..	21,706
Total, States	283,118	11,034	11,428	899	2,263	1,643	..	322,515
Grand total—								
Currencies in which repayable	372,658	14,641	29,865	3,196	10,245	2,000	4,801	..
Australian currency equivalents(a) \$A'000	372,658	36,603	26,665	2,640	2,092	493	1,072	442,223

(a) For rates of exchange to \$A ruling at 30 June 1965 see page 680.

GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH AND STATES
ANNUAL INTEREST PAYABLE, 30 JUNE 1965—continued

	Currency in which payable							Total— Aus- tralian currency equiva- lents(a)
	Aus- tralian currency	Sterling	United States dollars	Can- adian dollars	Swiss francs	Nether- lands guilders	German Deutsche marks	
AVERAGE RATE OF INTEREST LIABILITY (Per cent)								
For Commonwealth purposes	3.56	4.73	5.00	4.62	4.11	5.00	5.68	3.82
On account of States—								
New South Wales . . .	4.56	4.58	5.00	5.75	4.50	5.00	..	4.58
Victoria . . .	4.63	4.32	5.03	5.75	4.50	5.00	..	4.62
Queensland . . .	4.49	3.74	4.71	5.75	4.50	5.00	..	4.40
South Australia . . .	4.60	3.55	5.00	5.75	4.50	5.00	..	4.52
Western Australia . . .	4.59	3.44	4.99	5.75	4.50	5.00	..	4.75
Tasmania . . .	4.60	4.02	5.17	5.75	4.50	5.00	..	4.59
Total, States . . .	4.58	4.11	4.97	5.75	4.50	5.00	..	4.55
Grand total . . .	4.29	4.24	4.99	4.88	4.19	5.00	5.68	4.33

(a) For rates of exchange to \$A ruling at 30 June 1965, see page 680.

GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH AND STATES
30 JUNE 1961 TO 1965

	30 June—				
	1961	1962	1963	1964	1965
For Commonwealth purposes—					
Australian currency . . . \$A'000	2,652,908	2,560,948	2,518,728	2,568,714	2,512,888
Sterling . . . £Stg'000	75,339	75,188	77,327	79,393	76,253
United States dollars . . . \$US'000	317,812	315,617	362,025	351,347	368,641
Canadian dollars . . . \$Can'000	51,933	51,627	50,948	50,376	49,665
Swiss francs . . . Sw. fr.'000	210,657	209,658	196,556	194,288	194,288
Netherlands guilders . . . f.'000	..	7,150	7,150	7,150	7,150
German Deutsche marks . . . D.M.'000	6,355	6,355	6,355	37,901	84,596
Total, Commonwealth—Australian cur- rency equivalents(a) . . . \$A'000	3,214,656	3,119,350	3,120,672	3,172,396	3,133,997
On account of States—					
Australian currency . . . \$A'000	4,779,728	5,097,400	5,393,340	5,749,642	6,182,321
Sterling . . . £Stg'000	266,691	266,161	273,843	284,795	268,670
United States dollars . . . \$US'000	178,256	187,701	227,930	220,966	229,884
Canadian dollars . . . \$Can'000	16,765	16,765	16,668	16,065	15,633
Swiss francs . . . Sw. fr.'000	50,296	50,296	50,296	50,296	50,296
Netherlands guilders . . . f.'000	..	32,850	32,850	32,850	32,850
Total, States—Australian currency equi- valents(a) . . . \$A'000	5,630,480	5,962,610	6,313,596	6,690,562	7,090,533
Total, Commonwealth and States— Australian currency equivalents(a) . . . \$A'000	8,845,136	9,081,960	9,434,268	9,862,958	10,224,530

(a) For rates of exchange to \$A ruling at 30 June 1965, see page 680.

GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH AND STATES
ANNUAL INTEREST PAYABLE, 30 JUNE 1961 TO 1965

	30 June—				
	1961	1962	1963	1964	1965
AMOUNT					
For Commonwealth purposes—					
Australian currency . . . \$A'000	86,554	85,290	84,550	89,405	89,540
Sterling . . . £Stg'000	3,395	3,386	3,504	3,714	3,608
United States dollars . . . \$US'000	14,570	15,053	17,711	17,334	18,437
Canadian dollars . . . \$Can'000	2,388	2,380	2,352	2,327	2,297
Swiss francs . . . Sw. fr.'000	8,723	8,675	8,080	7,982	7,982
Netherlands guilders . . . f.'000	..	357	357	357	358
German Deutsche marks . . . D.M.'000	302	302	302	2,116	4,801
Total, Commonwealth—Australian currency equivalents(a) . . . \$A'000	111,974	111,090	112,870	118,280	119,709
On account of States—					
Australian currency . . . \$A'000	208,144	225,886	238,128	255,105	283,118
Sterling . . . £Stg'000	10,355	10,328	10,917	11,529	11,034
United States dollars . . . \$US'000	7,900	8,976	11,227	10,889	11,428
Canadian dollars . . . \$Can'000	964	964	959	924	899
Swiss francs . . . Sw. fr.'000	2,263	2,263	2,263	2,263	2,263
Netherlands guilders . . . f.'000	..	1,643	1,643	1,643	1,643
Total, States—Australian currency equivalents(a) . . . \$A'000	242,388	261,326	277,106	295,278	322,515
Total, Commonwealth and States—Australian currency equivalents(a) . . . \$A'000	354,362	372,416	389,976	413,558	442,223

AVERAGE RATE OF INTEREST LIABILITY

(Per cent)

For Commonwealth purposes—					
Australian currency	3.26	3.33	3.36	3.48	3.56
Sterling	4.51	4.50	4.53	4.68	4.73
United States dollars	4.58	4.77	4.89	4.93	5.00
Canadian dollars	4.60	4.61	4.62	4.62	4.62
Swiss francs	4.14	4.14	4.11	4.11	4.11
Netherlands guilders . . . . .	..	5.00	5.00	5.00	5.00
German Deutsche marks	4.75	4.75	4.75	4.58	5.68
Total, Commonwealth—Australian currency equivalents(a)	3.48	3.56	3.62	3.73	3.82
On account of States—					
Australian currency	4.35	4.43	4.42	4.44	4.58
Sterling	3.88	3.88	3.99	4.05	4.11
United States dollars	4.43	4.79	4.93	4.93	4.97
Canadian dollars	5.75	5.75	5.75	5.75	5.75
Swiss francs	4.50	4.50	4.50	4.50	4.50
Netherlands guilders . . . . .	..	5.00	5.00	5.00	5.00
Total, States—Australian currency equivalents(a)	4.30	4.38	4.39	4.41	4.55
Total, Commonwealth and States—Australian currency equivalents(a)	4.01	4.10	4.13	4.19	4.33

(a) For rates of exchange to \$A ruling at 30 June 1965 see page 680.

Government securities on issue and annual interest payable—Australian currency

In the following tables, details, including per capita figures, are shown in Australian currency equivalents calculated at rates of exchange ruling at 30 June of each of the years concerned.

GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH AND STATES
30 JUNE 1965—AUSTRALIAN CURRENCY

	Currency in which repayable							Total
	Australian currency	Sterling	United States dollars	Can- adian dollars	Swiss francs	Nether- lands guilders	German Deutsche marks	
SECURITIES ON ISSUE (\$A'000)								
For Commonwealth pur- poses—								
Treasury bills, internal .	632,400	..	..	..	..	..	..	632,400
Other short-term .	196,432	..	..	..	..	..	..	196,432
Other .	1,684,056	190,633	329,143	41,018	39,669	1,764	18,883	2,305,165
<i>Total, Commonwealth</i>	<i>2,512,888</i>	<i>190,633</i>	<i>329,143</i>	<i>41,018</i>	<i>39,669</i>	<i>1,764</i>	<i>18,883</i>	<i>3,133,997</i>
On account of States—								
New South Wales .	2,050,277	256,931	90,297	4,065	3,233	2,561	..	2,407,364
Victoria .	1,518,481	112,201	40,729	3,269	2,600	2,059	..	1,679,339
Queensland .	771,706	114,444	29,563	1,640	1,305	1,048	..	919,706
South Australia .	811,354	83,865	20,071	1,739	1,383	1,034	..	919,446
Western Australia .	591,340	82,305	14,969	1,248	993	805	..	691,660
Tasmania .	439,163	21,930	9,624	950	756	596	..	473,019
<i>Total, States</i> .	<i>6,182,321</i>	<i>671,677</i>	<i>205,254</i>	<i>12,911</i>	<i>10,269</i>	<i>8,102</i>	<i>..</i>	<i>7,090,533</i>
Total, Commonwealth and States—								
Treasury bills, internal .	632,400	..	..	..	..	..	..	632,400
Other short-term .	196,432	..	..	..	..	..	..	196,432
Other .	7,866,376	862,309	534,397	53,930	49,938	9,866	18,883	9,395,698
Grand total .	8,695,208	862,309	534,397	53,930	49,938	9,866	18,883	10,224,530

PER HEAD OF POPULATION

(\$A)

For Commonwealth purposes . . .	221.21	16.78	28.98	3.61	3.49	0.16	1.66	275.89
On account of States—								
New South Wales . . .	489.02	61.28	21.54	0.97	0.77	0.61	..	574.19
Victoria . . .	473.33	34.97	12.70	1.02	0.81	0.64	..	523.47
Queensland . . .	479.12	71.05	18.35	1.02	0.81	0.65	..	571.00
South Australia . . .	769.61	79.55	19.04	1.65	1.31	0.98	..	872.14
Western Australia . . .	735.07	102.31	18.61	1.55	1.23	1.00	..	859.78
Tasmania . . .	1,199.82	59.91	26.29	2.60	2.07	1.63	..	1,292.32
<i>Total, States</i> . . .	<i>550.22</i>	<i>59.78</i>	<i>18.27</i>	<i>1.15</i>	<i>0.91</i>	<i>0.72</i>	<i>..</i>	<i>631.05</i>
Total Commonwealth and States . . .	765.46	75.91	47.04	4.77	4.40	0.87	1.66	900.10

ANNUAL INTEREST PAYABLE

(\$A'000)

For Commonwealth purposes	89,540	9,019	16,462	1,897	1,630	88	1,072	119,708
On account of States—								
New South Wales . . .	93,462	11,765	4,514	234	145	128	..	110,250
Victoria . . .	70,340	4,853	2,048	188	117	103	..	77,650
Queensland . . .	34,614	4,280	1,393	94	59	53	..	40,492
South Australia . . .	37,338	2,978	1,004	100	62	52	..	41,534
Western Australia . . .	27,156	2,828	746	72	45	40	..	30,886
Tasmania . . .	20,208	883	497	55	34	30	..	21,706
<i>Total, States</i> . . .	<i>283,118</i>	<i>27,584</i>	<i>10,203</i>	<i>742</i>	<i>462</i>	<i>405</i>	<i>..</i>	<i>322,515</i>
Total, Commonwealth and States . . .	372,658	36,603	26,665	2,640	2,092	493	1,072	442,223

GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH AND STATES
30 JUNE 1965—AUSTRALIAN CURRENCY—*continued*

	Currency in which repayable—							Total
	Australian	Sterling	United States dollars	Canadian dollars	Swiss francs	Netherlands guilders	German Deutsche marks	
—								
ANNUAL INTEREST PAYABLE PER HEAD OF POPULATION (\$A)								
For Commonwealth purposes	7.88	0.79	1.45	0.17	0.14	0.01	0.09	10.54
On account of States—								
New South Wales	22.29	2.81	1.08	0.06	0.03	0.03	..	26.30
Victoria	21.93	1.51	0.64	0.06	0.04	0.03	..	24.20
Queensland	21.49	2.66	0.86	0.06	0.04	0.03	..	25.14
South Australia	35.42	2.82	0.95	0.09	0.06	0.05	..	39.40
Western Australia	33.76	3.52	0.93	0.09	0.06	0.05	..	38.39
Tasmania	55.21	2.41	1.36	0.18	0.09	0.08	..	59.30
Total, States	25.20	2.45	0.91	0.07	0.04	0.04	..	28.70
Total, Commonwealth and States	32.81	3.22	2.35	0.23	0.18	0.04	0.09	38.93

GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH AND STATES
SECURITIES ON ISSUE AND ANNUAL INTEREST PAYABLE, 30 JUNE 1961
TO 1965—AUSTRALIAN CURRENCY
(\$A'000)

	30 June—				
	1961	1962	1963	1964	1965
—					
SECURITIES ON ISSUE					
For Commonwealth purposes—					
Treasury Bills, Internal	502,200	481,800	559,600	599,000	632,400
Other short-term	372,000	416,000	385,076	330,570	196,432
Other	2,340,456	2,221,550	2,175,996	2,242,826	2,305,165
Total, Commonwealth	3,214,656	3,119,350	3,120,672	3,172,396	3,133,997
On account of States—					
New South Wales	1,952,568	2,056,616	2,167,012	2,283,382	2,407,364
Victoria	1,307,512	1,392,540	1,482,260	1,577,722	1,679,339
Queensland	722,308	765,770	811,274	862,774	919,706
South Australia	739,498	780,646	824,186	870,504	919,446
Western Australia	545,756	578,760	613,396	652,796	691,660
Tasmania	362,838	388,278	415,468	443,384	473,019
Total, States	5,630,480	5,962,610	6,313,596	6,690,562	7,090,533
Total, Commonwealth and States—					
Treasury bills, internal	502,200	481,800	559,600	599,000	632,400
Other short-term	372,000	416,000	385,076	330,570	196,432
Other	7,970,936	8,184,160	8,489,592	8,933,388	9,395,698
Grand total	8,845,136	9,081,960	9,434,268	9,862,958	10,224,530

GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH AND STATES
SECURITIES ON ISSUE AND ANNUAL INTEREST PAYABLE, 30 JUNE 1961
TO 1965—AUSTRALIAN CURRENCY—*continued*
(\$A'000)

	30 June—				
	1961	1962	1963	1964	1965
ANNUAL INTEREST PAYABLE					
For Commonwealth purposes	111,974	111,090	112,870	118,280	119,708
On account of States—					
New South Wales	84,252	90,084	95,314	101,280	110,250
Victoria	57,624	62,422	66,350	70,890	77,650
Queensland	30,050	32,670	34,524	36,920	40,492
South Australia	31,780	34,172	35,974	38,114	41,534
Western Australia	22,958	24,914	26,420	28,284	30,886
Tasmania	15,724	17,064	18,524	19,790	21,706
<i>Total, States</i>	<i>242,388</i>	<i>261,326</i>	<i>277,106</i>	<i>295,278</i>	<i>322,515</i>
<i>Total, Commonwealth and States</i>	<i>354,362</i>	<i>372,416</i>	<i>389,976</i>	<i>413,558</i>	<i>442,223</i>

Government securities on issue at each rate of interest and according to earliest and latest years of maturity

For details of securities on issue for Commonwealth and State purposes at 30 June 1965 at each rate of interest and classified according to the earliest and latest years of maturity *see* the annual bulletin *State, Territory and Local Government Authorities' Finance and Government Securities*.

Short-term securities on issue

Particulars of the short-term securities (Treasury bills, Treasury notes and seasonal securities) of the Commonwealth and States in Australia at intervals from 30 June 1961 to 30 June 1965 are shown in the following table. These securities are included in the government securities on issue as shown elsewhere. No short-term securities have been raised overseas since September 1956, when all such securities held in London were expatriated to Australia.

GOVERNMENT SHORT-TERM SECURITIES ON ISSUE MATURING IN AUSTRALIA(a)
COMMONWEALTH AND STATES, 30 JUNE 1961 TO 30 JUNE 1965
(\$A'000)

Date	Commonwealth		States(b)	Total
	Treasury bills	Treasury notes		
30 June 1961	372,000	..	..	372,000
.. .. 1962	416,000	..	..	416,000
.. .. 1963	246,000	139,076	..	385,076
30 September 1963	256,000	205,868	6,000	467,868
31 December 1963	356,000	294,978	20,000	670,978
31 March 1964	306,000	297,028	12,000	615,028
30 June 1964	178,000	152,570	..	330,570
30 September 1964	242,000	183,996	10,000	435,996
31 December 1964	432,000	203,750	26,000	661,750
31 March 1965	80,000	394,846	24,000	498,846
30 June 1965	116,000	80,342	..	196,342

(a) Excludes overdrafts and internal Treasury bills. (b) Treasury bills.

The Treasury bill discount rate in Australia has remained at 1 per cent since 29 July 1952.

In 1962-63, daily issues of Treasury notes replaced those of seasonal securities which had, during the three previous financial years, all matured in the course of the same financial year in which they were issued. Treasury notes with a currency of thirteen weeks were issued in multiples of \$2,000 over the minimum subscription of \$10,000, and increases in value were subject to the usual income tax rebate of two shillings in the pound (ten cents in the dollar). In 1964-65 the issue prices of Treasury notes were 99.05 per cent from August to January, 99.025 per cent from January to April and 98.95 per cent from April to June, and the yields varied accordingly from 3.85 per cent to 3.95 per cent and 4.25 per cent.

Government securities on issue on account of the States; local government and semi-governmental authority securities on issue

In some States certain public utilities, such as tramways, water supply and sewerage, harbour services, etc., are controlled by boards or trusts, which in addition to receiving advances from the central government raise loans by borrowing on their own behalf, while in other States these services are controlled by the central government. Direct comparisons between States of the securities on issue on account of the several States should therefore be made with caution. The table following shows for 1959-60 to 1963-64 particulars of the securities on issue on account of the States, the securities on issue by local government and semi-governmental authorities, and the aggregates of these.

**GOVERNMENT SECURITIES ON ISSUE ON ACCOUNT OF THE STATES: LOCAL GOVERNMENT AND SEMI-GOVERNMENTAL AUTHORITY SECURITIES ON ISSUE
30 JUNE 1960 TO 1964**

	State	Local government (a)	Semi-gov- ernmental (a)	Total
SECURITIES ON ISSUE (\$A'000)(b)				
30 June 1964—				
New South Wales	2,283,382	216,246	726,517	3,226,146
Victoria	1,577,722	135,320	1,225,597	2,938,639
Queensland	862,774	256,864	223,573	1,343,210
South Australia	870,504	22,784	103,637	996,925
Western Australia	652,796	40,009	58,738	751,543
Tasmania	443,384	37,764	46,595	527,743
Total, 30 June 1964	6,690,562	708,986	2,384,658	9,784,206
1963	6,313,596	642,634	2,195,150	9,151,380
1962	5,962,610	581,016	2,003,985	8,547,610
1961	5,630,480	517,535	1,842,494	7,990,509
1960	5,301,202	473,289	1,711,246	7,485,737

PER HEAD OF POPULATION
(\$A)(b)

30 June 1964—				
New South Wales	554.66	52.53	176.48	783.67
Victoria	503.91	43.22	391.44	938.57
Queensland	542.96	161.65	140.70	845.31
South Australia	843.82	22.09	100.46	966.37
Western Australia	826.41	50.65	74.36	951.42
Tasmania	1,216.20	103.59	127.81	1,447.59
Total, 30 June 1964	606.98	64.32	216.34	887.64
1963	583.87	59.43	203.00	846.30
1962	561.89	54.75	188.85	805.49
1961	540.24	49.66	176.78	766.68
1960	519.87	46.41	167.82	734.11

(a) Excludes amounts due to the central government. Includes bank overdrafts. (b) Oversea holdings have been converted to Australian currency at the rates of exchange current at 30 June of each year shown.

Commonwealth loan raisings

Under the Financial Agreement between the Commonwealth and the States the Commonwealth is responsible for raising all loan moneys required either by the Commonwealth or by the State Governments. Details of loan transactions given in this section relate, therefore, to all loans raised for the Commonwealth and the States.

New loans raised

Australia. The following table shows details of new loans raised in Australia by the Commonwealth during the three years 1962-63 to 1964-65.

COMMONWEALTH NEW LOANS(a) RAISED IN AUSTRALIA, 1962-63 TO 1964-65

Month of raising	Amount invited	Amount subscribed	Rate of interest per annum	Year of maturity	Price of issue	Allocation of loan		
						Commonwealth		States
						War (1939-45) etc.	Other purposes	
	\$'000	\$'000	Per cent		Per cent	\$'000	\$'000	\$'000
1962-63—								
September (Loan No. 137)	100,000	57,906 20,929 81,489	4½ 4½ 5	1965 1972 1985	99½ 100 100	..	29,437	130,888
February (Loan No. 139)	120,000	86,323 23,331 143,716	4½ 4½ 5	1966 1972 1985	100 99 100	..	76,915	176,455
July-June (Special bonds)(b)	..	62,466	4-5	{ 1969 1970 }	100	7,179	24,637	30,649
1963-64—								
July (Loan No. 142)	90,000	66,932 50,351 31,752	3½ 4½ 4½	1966 1973 1986	99½ 99 99½	..	27,322	121,713
October (Loan No. 143)	120,000	42,551 49,964 46,265	3½ 4½ 4½	1966 1973 1986	99½ 99 100	..	43,508	95,272
February (Loan No. 145)	140,000	72,549 37,384 44,982	3½ 4½ 4½	1967 1974 1987	99½ 99½ 100	..	83,533	71,382
May (Loan No. 147)	80,000	9,689 15,907 41,753	4½ 4½ 4½	1967 1975 1984	100 100 99	..	14,760	52,589
July-June (Special bonds)(b)	..	72,159	3½-4½	1971	100	4,311	12,447	55,401
1964-65—								
August (Loan No. 149)	100,000	13,794 13,062 115,184	4½ 4½ 5	1967 1975 1984	99½ 100 100	..	25,152	116,888
November (Loan No. 151)	120,000	11,500 17,560 71,351	4½ 4½ 5	1967 1975 1985	99½ 100 100	..	20,093	80,318
February (Loan No. 152)	120,000	9,169 24,327 45,109	4½ 4½ 5	1967 1972 1985	99½ 99½ 100	..	13,925	64,680
April (Loan No. 153)	80,000	33,566 6,577 52,731	5 5 5½	1968 1975 1985	100 99 100	..	61,769	31,104
June (Loan No. 155)(c)	134,000	22,000 20,000 92,000	5 5 5½	1968 1975 1985	100 99 100	..	24,408	109,592
July-June	..	52,190	3½-5½	1972	100	7,187	8,117	36,886

(a) Includes loans raised for redemption of Treasury bills, but excludes conversion loans, loans for redemption of debt maturing in London, short-term debt and certain miscellaneous debt (see page 811).
 (b) Special bonds open for continuous subscription redeemable at prices commencing at par and increasing to a premium of 3 per cent if held until maturity, 1966-72. Interest increases over period of currency.
 (c) Special issue. For details see following paragraph.

The loan of \$134,000,000 raised in June 1965 was for the purpose of fulfilling an undertaking given by the Commonwealth that the States would have access to loan funds for their works programmes up to the approved Loan Council borrowing programmes. These programmes

totalled \$510,000,000 in 1962-63, \$544,000,000 in 1963-64, and \$580,000,000 in 1964-65. The subscription to the special loan in 1964-65 came from the Loan Consolidation and Investment Reserve Trust Account.

Finance for the approved Loan Council programmes from 1962-63 to 1964-65 was provided from the following sources:

	1962-63 \$'000	1963-64 \$'000	1964-65 \$'000
Public loans, domestic raisings, etc.	406,294	508,782	424,092
Oversea loans and special Commonwealth assistance	102,706	35,218	155,908
Total	510,000	544,000	580,000

In addition to the new loans raised as shown in the table on the previous page and the redemption and conversion loans shown on page 809 there were other miscellaneous loan operations in Australia (*see* page 811).

London. A loan of £Stg 12,000,000, 5½ per cent interest, price of issue 98 per cent, maturing 1978, was raised in London during 1962-63 and a further loan of £Stg20,000,000, 5½ per cent interest, price of issue 98.5 per cent, maturing 1982, was raised in 1963-64.

New York. The following table gives details of the loans raised during the period 1962-63 to 1964-65.

**COMMONWEALTH NEW LOANS REPAYABLE IN UNITED STATES
DOLLARS, 1962-63 TO 1964-65**

Month of raising	Amount of loan	Rate of interest per annum	Price of issue	Year of maturity	Allocation of loan	
					Commonwealth	States
	\$US'000	Per cent	Per cent		\$US'000	\$US'000
1962-63—						
July	30,000	5½	97½	1982	5,508	24,492
October	25,000	5½	99	1982	4,590	20,410
April	30,000	5	97½	1983	30,000	..
July-June	4,600	5½	100	1967	(a) 4,600	..
July-June	1,250	4½-4½	100	1971	(b) 1,250	..
1963-64—						
July-June	2,000	4½-4½	100	1965-71	(a) 2,000	..
July-June	2,500	4½-5½	100	1966-72	(a) 2,500	..
July-June	1,250	4½-4½	100	1971	(b) 1,250	..
1964-65—						
May(c)	25,000	5½	98½	1985	5,000	20,000
July-June	7,000	4½-4½	100	1965-71	(a) 7,000	..
July-June	17,500	4½-5½	100	1966-72	(a) 17,500	..
July-June	4,750	4½-5½	100	1967-73	(a) 4,750	..
July-June	8,500	4½-4½	100	1971	(b) 8,500	..
July-June	1,000	4½-5½	100	1973	(b) 1,000	..

(a) Proceeds used for Qantas Empire Airways Loan. (b) Proceeds used for Australian National Airlines Commission Loan. (c) Prospectus issued in New York and loan offered for subscription in the United States, United Kingdom and the various European centres.

Conversion and redemption loans

Australia. Particulars of conversion loans raised in Australia during the three years 1962-63 to 1964-65 are given in the following table.

COMMONWEALTH CONVERSION AND REDEMPTION LOANS RAISED IN AUSTRALIA, 1962-63 TO 1964-65

Month of raising	Old loan		New loan				Increase in annual liability for interest
	Amount	Rate of interest per annum	Amount	Rate of interest per annum	Price of issue	Year of maturity	
	\$A'000	Per cent	\$A'000	Per cent	Per cent		\$A'000
1962-63—September	{ 153,146 202,088	3½ 4½	{ 100,794 99,414 79,450 a 11,602 42,966 25,414 4,306 (a) 1,192 199,580 183,078 a 30,168	4½ 4½ 5 4½-5 4½ 4½ 5 4½-5 4 4½-5	99½ 100 100 100 100 99 100 100 100 98½ 100	1965 1972 1985 1969 1966 1999 1985 1970 1966 1972 1970	{ -408
February	79,972	4	{ 15,698 56,190 60,836 84,420 a 19,766 67,542 17,580 4,282 (a) 1,748 67,108 31,528 25,220 (a) 202	4-5½ 3½ 4½ 4½ 4-4½ 3½ 4½ 4½ 3½-4½ 4½ 4½ 4½ 3½-4½	100 99½ 99½ 100 100 99½ 99½ 100 100 100 100 99 100	{ 1970 1966 1973 1986 1970 1967 1974 1987 1971 1967 1975 1984 1971 1970 1971	{ 38
April	{ 125,784 359,572	5 5½	{ 19,398 58,284 58,018 165,109 a 27,970 69,967 42,466 80,498 (a) 3,040	4-5½ 3½ 4½ 5 4½-5 5 5 5½ 4½-5½	100 99½ 99½ 100 100 99 99 100 100 100	{ 1969 1970 1966 1973 1986 1970 1967 1974 1987 1971 1967 1975 1984 1971 1970 1971	{ -8,122
July-June (Special bonds)	15,698	4-5½	19,398	4-5	100	{ 1970 1970	{ ..
1963-64—October	288,670	3½	{ 35,276 58,284 58,018 165,109 a 27,970 69,967 42,466 80,498 (a) 3,040	3½ 4½ 4½ 5 4½-5 5 5 5½ 4½-5½	99½ 100 100 100 100 99 99 100 100 100	{ 1967 1975 1984 1972 1968 1975 1985 1972 1971 1972	{ 260
February	99,192	4½	{ 35,276 58,284 58,018 165,109 a 27,970 69,967 42,466 80,498 (a) 3,040	4½ 4½ 4½ 5 4½-5 5 5 5½ 4½-5½	99½ 100 100 100 100 99 99 100 100 100	{ 1967 1975 1984 1972 1968 1975 1985 1972 1971 1972	{ -1,174
May	165,652	4½	{ 35,276 58,284 58,018 165,109 a 27,970 69,967 42,466 80,498 (a) 3,040	4½ 4½ 4½ 5 4½-5 5 5 5½ 4½-5½	99½ 100 100 100 100 99 99 100 100 100	{ 1967 1975 1984 1972 1968 1975 1985 1972 1971 1972	{ -1,596
July-June (Special bonds)	19,398	4-5½	19,398	3½-4½	100	{ 1970 1971	{ -48
1964-65—August	415,672	3½	{ 35,276 58,284 58,018 165,109 a 27,970 69,967 42,466 80,498 (a) 3,040	3½ 4½ 4½ 5 4½-5 5 5 5½ 4½-5½	99½ 100 100 100 100 99 99 100 100 100	{ 1967 1975 1984 1972 1968 1975 1985 1972 1971 1972	{ 1,687
April	303,026	4½-5	{ 35,276 58,284 58,018 165,109 a 27,970 69,967 42,466 80,498 (a) 3,040	4½-5 4½ 4½ 5 4½-5 5 5 5½ 4½-5½	99 99 99 100 100 99 99 100 100 100	{ 1975 1985 1972 1971 1972	{ -2,895
July-June (Special bonds)	35,276	3½-5½	35,276	3½-5½	100	{ 1971 1972	{ ..

(a) Special bonds.

Minus sign (-) indicates reduction in liability for interest.

London. The following table shows particulars of loans raised in London during the years 1960-61, 1962-63 and 1963-64 for the purpose of redeeming and converting London loans. None was raised during 1961-62 or since 1963-64.

COMMONWEALTH LOANS RAISED FOR THE CONVERSION AND REDEMPTION OF LOANS MATURING IN LONDON, 1960-61 TO 1963-64

Month of raising	Old loan		New loan					Increase in annual liability for interest and exchange	
	Amount	Rate of interest per annum	Amount raised in—		Rate of interest per annum	Price of issue	Year of maturity		
			Australia	London					
	£Stg '000	Per cent	\$A'000	£Stg '000	Per cent	Per cent		£Stg '000	\$A'000 (a)
1960-61— July . . .	13,925	3	..	13,925	6	98	1977-80 1975 1981-83	418	1,045
January . . .	20,579	3½	..	20,000	6	97½		531	1,328
1962-63— July . . .	11,790	4	..	10,000	6	97		1972	128	320
1963-64— October . . .	5,655	4	..	5,741	5½	98½	1982	90	225

(a) No account has been taken of the cost of issuing the conversion loans at a discount. Exchange calculated at \$A1 = £Stg 0.4000 (the International Monetary Fund par rate of exchange in the years shown).

New York. During 1946-47 four loans totalling \$US128,000,000 were raised in New York to redeem loans which became due for redemption or which the Commonwealth had the option of redeeming. No further loans were raised in New York for this purpose until December 1954. The loan raised in New York for this purpose in March 1957 amounted to \$US17,114,000, at 5 per cent interest, issued at par, maturing in 1972. No loans were raised for the purpose of redeeming loans which became due for redemption or which the Commonwealth had the option of redeeming during 1957-58 to 1960-61, or in 1962-63 and 1963-64. In 1961-62 a re-financing loan of \$US30,000,000 was raised at 5½ per cent interest, issued at 98.25 per cent, maturing in 1982.

Drawings from cash loans, for which Commonwealth notes were issued in New York between 1956 and 1964, were used to finance the purchase of aircraft and equipment by Qantas Empire Airways from November 1956, and to finance aircraft purchases by Trans-Australia Airlines from September 1958. At 30 June 1965 outstanding notes which are subject to interest rates varying between 4½ per cent and 5½ per cent and which are all repayable before 1 January 1974 amounted to \$US59,330,000.

International Bank for Reconstruction and Development loans

To provide dollar funds of the purchase of certain types of capital equipment and plant which were indispensable to the furtherance of development in Australia and which could be obtained only in the United States of America or Canada, the Commonwealth Government arranged five loans from the International Bank for Reconstruction and Development between August 1950 and December 1956, amounting to \$US308,500,000, repayable over periods of from ten to twenty-five years at rates of interest of from 4½ to 4¾ per cent. The proceeds of the latest of these loans were finally drawn in March 1959.

The capital equipment and plant purchased from the proceeds of these loans were made available to Commonwealth and State Government departments and agencies, and private firms and individuals for use in the development of Australian resources. The goods were imported and distributed through normal channels, and payment was made through the Australian banking system.

The loan on behalf of Qantas Empire Airways of \$US9,230,000 at 4¾ per cent maturing in 1966-87 was finally drawn at the end of July 1958, and in 1962-63, 1963-64 and 1964-65 respectively drawings of \$US31,851,000, \$US27,018,000 and \$US23,519,000 were made from the loan (at 5½ per cent maturing in 1966-87) raised for the purposes of the Snowy Mountains Hydro-electric Authority.

Drawings from International Bank loans have been made mainly in United States dollars and partly in Canadian dollars, Swiss francs and German Deutsche marks.

Swiss loans

To foster industrial development in Australia and to stimulate trade relations between the two countries, the Commonwealth Government arranged for the issue in Switzerland in November 1953, February 1955, March 1960, and March 1961 of four public loans each of 60,000,000 Swiss francs. The loans were underwritten by a Swiss banking group headed by the Swiss Bank Corporation, the Crédit Suisse and the Union Bank of Switzerland. Certain Swiss taxes connected with the issue and servicing of the loans were paid on an agreed basis by the Australian Government.

The first loan was for a period of fifteen years with an option on the part of the Commonwealth Government to repay the loan in full or in part after twelve years. The rate of interest was 4 per cent and the issue price 99. Bondholders have the option of requiring payment either in Australian pounds or in the foreign currency equivalent of Australian pounds.

The second loan was for a period of fifteen years with an option to redeem after ten years. The rate of interest was 3¾ per cent, issue price 99.50 per cent. Bonds and interest are payable only in Swiss francs. The third loan was for a period of fifteen years with an option to redeem after ten years. The rate of interest was 4½ per cent, issue price 99 per cent. The fourth loan was issued at par in March 1961, at the rate of 4½ per cent maturing in April 1976. Payments of interest and repayments of principal are to be made only in Swiss francs.

The loans were fully subscribed, and Swiss franc proceeds, after deducting borrowing expenses, were sold by the Commonwealth Government to the Reserve Bank in return for an equivalent amount of Australian currency.

Canadian loans

In October 1955, the Commonwealth Government arranged for the issue in Canada of a public loan of 15,000,000 Canadian dollars raised to assist Australia's development programme. The loan was for a period of fifteen years with an option on the part of the Australian Government to repay the loan in full or in part at any time prior to 1 November 1970. The rate of interest

was 4 per cent, payable half-yearly, and the issue price 98.50 per cent. A second loan, of 20,000,000 Canadian dollars, was raised in March 1961, on the security of the Commonwealth of Australia, 5½ per cent twenty-year bonds being issued at the rate of 98.50 per cent. Bonds and interest are payable in Canadian dollars in each case. The loans were fully subscribed, and the net Canadian dollar proceeds were sold to the Reserve Bank for Australian currency.

Netherlands loan

In 1961 the Commonwealth arranged for a public flotation in the Netherlands of a loan of 40,000,000 Netherlands guilders at par, with an interest rate of 5 per cent per annum. The proceeds were used to assist the loan programmes of the Commonwealth and States. The loan is to be repaid in fifteen annual instalments from 1967 to 1981, but, at the Commonwealth's option, an earlier redemption date may be negotiated on and after 15 December 1971.

Summary of loan transactions

The following table contains a summary of loan transactions on behalf of the Commonwealth and State Governments during the five years 1960-61 to 1964-65.

COMMONWEALTH LOAN TRANSACTIONS: SUMMARY, 1960-61 TO 1964-65

	1960-61	1961-62	1962-63	1963-64	1964-65
New loans(a) raised in—					
Australia . . . \$A'000	407,762	460,152	476,160	582,238	600,120
London . . . £Stg'000	..	..	12,000	21,067	..
New York(b) . . . \$US'000	30,517	51,483	122,701	32,768	87,261
Switzerland . . . francs '000	60,000	..	..	..	..
Canada . . . \$Can'000	20,000	..	..	..	..
Netherlands . . . guilders '000	..	40,000	..	..	..
Miscellaneous debt in Australia(c)					
\$A'000	7,352	8,930	34,793	-54	24,184
Net change in short-term debt—					
Australia—Public . . . \$A'000	-30,000	44,000	-170,000	-68,000	-62,000
Internal . . . \$A'000	35,200	-20,400	77,800	39,400	33,400
Treasury notes \$A'000	..	..	139,076	13,494	-85,632
Loans raised for conversion or redemption of existing securities maturing in—					
Australia . . . \$A'000	562,774	457,888	793,663	455,820	540,628
London . . . £Stg'000	33,925	..	10,000	5,741	..
New York . . . \$US'000	..	30,000	..	..	..

(a) Includes loans raised for redemption of Treasury bills. (b) Includes proceeds of \$US31,851,000 \$US27,018,000 and \$US23,519,000 in 1962-63, 1963-64 and 1964-65 from International Bank for Reconstruction and Development loan used for the purposes of the Snowy Mountains Hydro-electric Authority. (c) Advance loan subscriptions (net change), 'over the counter sales' (instalment stock and inscribed stock and bonds issued by State Governments) and Peace Savings Certificates (interest credited).

Minus sign (—) denotes a decrease in debt.

Government securities on issue maturing in Australia, classified by holder

The following table shows details of government securities maturing in Australia classified according to holder as at the 30th June 1964 and 1965.

**GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH AND STATE
MATURING IN AUSTRALIA, BY HOLDER(a), 30 JUNE 1964 AND 1965**

(Source: Reserve Bank of Australia Statistical Bulletin)

Holder	30 June—			
	1964		1965	
	Amount	Proportion of total	Amount	Proportion of total
	\$ million	Per cent	\$ million	Per cent
Reserve Bank of Australia	676	8.1	806	9.3
Trading banks	964	11.6	946	10.9
Savings banks	1,998	24.0	2,066	23.8
Life insurance offices	686	8.3	744	8.6
Fire, marine and general insurance offices	90	1.1	98	1.1
Other private financial institutions—				
Pension and provident funds	104	1.2	124	1.4
Friendly societies, hospitals and medical funds	16	0.2	16	0.2
Trustee companies	148	1.8	130	1.5
Pastoral finance companies	20	0.2	16	0.2
Money market dealers	356	4.3	342	3.9
Miscellaneous	24	0.3	26	0.3
Government financial institutions—				
Insurance offices and funds	86	1.0	100	1.1
Pension and provident funds	146	1.8	170	2.0
Public trustees	40	0.5	40	0.5
All other(b)	12	0.1	8	0.1
Public authorities (excluding finance)—				
Commonwealth Government (including Commonwealth semi-government)	1,350	16.2	1,508	17.3
State Government	46	0.6	24	0.3
Local government and State semi-government	216	2.6	244	2.8
Companies (excluding finance)	202	2.4	174	2.0
Other holders—				
Marketing boards	6	0.1	4	0.1
Farmers	126	1.5	116	1.3
Non-profit organizations	52	0.6	52	0.6
All other	954	11.5	942	10.8
Total	8,318	100.0	8,696	100.0

(a) Total stock inscribed, bonds in circulation, amounts paid up on outstanding applications, in transit claims and advance applications, Commonwealth Treasury Bills, debentures, and Savings Certificates

(b) Includes securities held by Commonwealth Development Bank of Australia.

National Debt Sinking Fund

Securities on issue on behalf of the Commonwealth

Particulars relating to the creation of sinking funds are included in issues of the Year Book prior to No. 23. The old sinking funds were merged in the National Debt Sinking Fund on 11 August 1923. Particulars of receipts and expenditure of the Commonwealth Account for the years 1960-61 to 1964-65 are as follows.

NATIONAL DEBT SINKING FUND: COMMONWEALTH ACCOUNT, 1960-61 TO 1964-65

(\$'000)

	1960-61	1961-62	1962-63	1963-64	1964-65
Receipts—					
From Consolidated Revenue	46,185	50,323	54,460	57,739	62,171
Loans and advances repaid	7,501	7,667	7,984	8,806	10,318
War Service Homes money repaid	19,616	18,844	22,175	27,131	31,137
Reparation moneys	32	16			
Interest on investments	(a) 15,660	(a) 13,234	(a) 12,082	(a) 12,872	(a) 12,040
Total, receipts	88,995	90,083	96,701	106,547	115,666
Expenditure (net cost)—					
Securities repurchased and redeemed in—					
Australia	117,066	105,050	31,309	49,311	153,857
London	1,189	340	165	1,507	7,239
New York	(b) 16,125	(b) 20,661	(b) 19,350	(b) 20,334	(b) 22,301
Canada			15	97	69
Total, expenditure	134,380	126,051	50,838	71,249	183,466
Balance at 30 June	320,369	284,401	330,264	365,562	297,761
Face value of securities repurchased and redeemed in—					
Australia	118,709	105,371	31,279	48,881	153,823
London	962	301	130	1,268	6,279
New York	(b) 7,441	(b) 9,535	(b) 8,913	(b) 9,330	(b) 10,204
Canada			7	48	34
Total, face value	127,112	115,207	40,330	59,526	170,340

(a) Includes interest received under *National Debt Sinking Fund (Special Payment) Act 1951*: 1960-61, \$5.6m; 1961-62, \$3.8m; 1962-63, \$3.5m; 1963-64, \$3.5m; 1964-65, \$3.5m. (b) Includes instalment repayments of loans from International Bank for Reconstruction and Development: 1960-61—face value, \$7.0m, net cost, \$15.1m; 1961-62—face value, \$7.3m, net cost, \$15.8m; 1962-63—face value, \$7.6m, net cost \$16.6m; 1963-64—face value, \$8.0m, net cost \$17.4m; 1964-65—face value \$8.4m, net cost, \$18.3m.

Securities on issue on behalf of States

A sinking fund for the redemption of the securities on issue on behalf of States was established under the Financial Agreement. Particulars of the transactions of the National Debt Sinking Fund (States' Account) for each State during the year 1964-65 and for all States during the years 1960-61 to 1964-65 are shown in the following tables.

NATIONAL DEBT SINKING FUND: STATES' ACCOUNT, 1964-65

(\$'000)

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
Receipts—							
Contributions under Financial Agreement—							
Commonwealth	5,662	3,937	2,109	2,193	1,616	1,129	16,646
States	19,778	15,325	7,503	7,655	6,446	3,392	60,099
Interest from States on cancelled securities	1	8	8	4	4	1	26
Special contributions by States	63	102	30	20	6	2	222
Interest on investments, etc.	1	—12	—7	—9	—4	—4	—36
Total, receipts	25,505	19,361	9,643	9,862	8,067	4,520	76,958
Expenditure (net cost)—							
Securities repurchased and redeemed in—							
Australia	15,044	14,447	5,741	7,783	6,053	3,739	52,808
London	6,879	2,727	2,614	1,062	1,125	205	14,612
New York	3,882	2,246	1,322	1,119	823	556	9,948
Canada	113	90	46	48	35	27	358
Total, expenditure	25,918	19,511	9,723	10,012	8,036	4,527	77,726
Balance at 30 June 1965	1,581	1,098	664	636	473	330	4,783
Face value of securities repurchased and redeemed in—							
Australia	15,045	14,452	5,741	7,794	6,053	3,739	52,825
London	5,511	2,360	2,230	960	1,009	180	12,250
New York	1,776	1,029	606	512	377	254	4,554
Canada	56	45	23	24	17	13	178
Total, face value	22,388	17,885	8,600	9,291	7,456	4,187	69,807

NATIONAL DEBT SINKING FUND: STATES' ACCOUNT, 1960-61 TO 1964-65
(\$'000)

	1960-61	1961-62	1962-63	1963-64	1964-65
Receipts—					
Contributions under Financial Agreement—					
Commonwealth	12,548	13,478	14,497	15,691	16,646
States	45,617	49,316	52,108	55,669	60,099
Interest from States on cancelled securities	32	30	66	45	26
Special contributions by States	475	387	344	974	222
Interest on investments, etc.	38	8	-80	107	-36
Total, receipts	58,710	63,219	66,935	72,486	76,958
Expenditure (net cost)—					
Securities repurchased and redeemed in—					
Australia	52,581	51,781	54,068	60,791	52,808
London	1,888	1,249	6,068	4,075	14,612
New York	3,680	10,115	4,138	6,228	9,948
Canada . . . . .	..	..	79	501	358
Total, expenditure	58,150	63,145	64,353	71,594	77,726
Balance at 30 June	2,004	1,078	4,660	5,522	4,783
Face values of securities repurchased and redeemed in—					
Australia	52,841	51,452	54,116	60,806	52,825
London	827	1,061	4,230	3,520	12,250
New York	1,742	4,556	1,920	2,862	4,554
Canada . . . . .	..	..	40	248	178
Total, face value	55,410	57,068	60,306	67,435	69,807

TAXES ON INCOME

A description of the development of income taxes in Australia appeared in Year Book No. 35, page 926. Since July 1942 the Commonwealth, under the uniform tax arrangement, has been the only authority imposing taxes on income.

The Income Tax and Social Services Contribution Assessment Act, 1936-1965, the *Income Tax and Social Services Contribution Acts 1964* and the *Income Tax and Social Services Contribution Regulations* deal with the assessment and imposition of Income Tax and Social Services Contribution. The second-mentioned Act is an annual measure, and its primary purpose is to declare the rates of tax and contribution payable for the financial year. Income Tax and Social Services Contribution is a combined levy commonly known as Income Tax.

Both individuals and companies are liable for income tax. Private companies are subject to tax on undistributed income in addition to the primary income tax levied on all companies.

The Income Tax (International Agreements) Act 1953-1965 gives the force of law to agreements between the Commonwealth and the Governments of the United Kingdom, Canada and New Zealand, and to a convention between the Government of the Commonwealth and the United States of America, for the avoidance of double taxation and the prevention of evasion of taxes on income.

Lodgment of returns and assessment of Income Tax

All persons with assessable income in excess of \$416 are required to lodge returns by 31 July each year (31 August for business incomes). The income tax payable is assessed, and assessment notices showing the amounts payable are issued during the year following the year of income. The approximate amount payable, however, has already been collected during the income year from employees by deductions from wages and from non-employees by a provisional tax. The amount shown on the assessment notice is therefore adjusted against the amount already paid and any difference either collected or refunded.

Pay-as-you-earn system

Salary and wage earners. Under this system salary and wage earners are subject to instalment deductions for payment of the tax at current rates from weekly (or fortnightly) earnings. Employers are required to make the deductions in accordance with a prescribed instalment scale. This scale shows the amount to be deducted according to the income and number of dependants of the employees. Under the group scheme of deduction, covering most employers of more than ten persons, the amount deducted is remitted to the Taxation Department within seven days of the close of the month in which the deduction is made.

Not later than 14 July each year employers are required to supply each employee with a group certificate showing amount earned and total deductions during the year ended 30 June. This certificate, together with the employee's return of income, is forwarded to the Taxation Department. If the tax assessed on the basis of the return is less than the amount shown on the group certificate, a refund is forwarded with his assessment, if not, the employee is required to pay the balance.

Under the stamp scheme used by employers other than group employers a stamp deduction sheet in two parts is used. Each four weeks the employer purchases stamps (also in two parts) for the amount of deductions made each pay day and sticks one part on each half of the sheet. At the end of the year the employer gives the employee one half of the sheet and sends the other half to the Taxation Department. The employee's half is then used in the same way as a group certificate.

Taxpayers with income other than salary or wages. These taxpayers pay provisional tax in respect of income other than salary and wages. Collection of tax for the current year is made at the same time as collection and assessment for the previous year are adjusted. The notice of assessment shows an amount of provisional tax for the current year. The provisional amount is an approximation to the tax which will be payable after the return of income for the current year has been lodged. It is ascertained by assuming that the income of the current year will be the same as that for the previous year (for which a return has already been lodged), but the rates for the current year are applied to the income and not the rates for the year in which it was derived. The assessment notice shows the provisional tax paid in the previous year as a credit against the tax assessed on the basis of the return for that year. On receipt of his assessment, the taxpayer may elect to substitute his own estimate of income for the current year and pay tax on the basis of this estimate. To protect the revenue, a penalty is imposed if the taxpayer elects to pay provisional tax on an estimate of income more than twenty per cent lower than the income of the previous year and he underestimates his income by more than twenty per cent. An employee with income of \$300 (\$200 prior to 1965-66) or more from sources other than salaries or wages is required to pay provisional tax in respect of that income.

Tax collected. During the collection years 1960-61 to 1964-65 net receipts (i.e. tax collected less refunds to taxpayers) from individual taxpayers was \$1,037.5m; \$1,074.7m; \$1,083.4m; \$1,272.2m and \$1,570.4m respectively. Of these amounts, instalments from salaries and wages in the respective years; accounted for \$642.8m (61.96 per cent), \$653.4m (60.80 per cent), \$684.4m (63.17 per cent), \$792.3m (62.28 per cent), and \$990.6m (63.08 per cent). The remainder came from direct cash payments from individual taxpayers.

Assessable income

As a general principle income assessable to income tax includes all income derived directly or indirectly from sources in Australia. Thus a non-resident is taxed on income derived in Australia, while a resident is, in general, not taxed on income (other than dividends) derived from overseas, if the income is taxed in the country in which it is derived.

The word income is used in its ordinary sense and includes certain receipts declared by the Assessment Act to be assessable income. Receipts such as gifts (other than gratuities received by an employee from his employer in the course of his employment), legacies, profits from the sale of property (unless acquired for the purpose of profit making), lottery wins, and most capital gains are not regarded as income and are not assessable.

Certain types of Australian income are exempt from tax in Australia, the more important being (i) pensions, child endowment and other payments under the *Social Services Act* 1947-1963 and the *Tuberculosis Act* 1948, (ii) income from gold-mining and uranium mining, (iii) twenty per cent of certain mining profits, (iv) dividends paid out of exempt mining profits, and (v) income received from a scholarship, bursary or other education allowance. No amount is included in assessable income on account of a house occupied by its owner.

Expenses incurred in gaining or producing assessable income or necessarily incurred in carrying on a business for that purpose are allowable deductions, except to the extent that such expenses are of a capital, private, or domestic nature, or are incurred in gaining or producing exempt income. Certain subscriptions to business associations and trade union dues are also allowable deductions.

Special deductions for both resident and non-resident taxpayers include such items as trading losses incurred over the previous seven years, bad debts, depreciation, rates and taxes on land which are annually assessed, gifts to certain institutions (e.g. scientific, charitable, benevolent, etc.) and one-third of amounts paid as calls to certain mining, prospecting, oil-prospecting, or afforestation companies operating in Australia. Resident taxpayers only are allowed a deduction from income of the full amount paid as calls and as application and allotment moneys to certain companies engaged in the search for oil in Australia and the Territory of Papua and New Guinea.

Residents of prescribed isolated areas subject to uncongenial climatic conditions and high costs of living are entitled to a zone allowance deduction. Two zones, A and B, have been prescribed and the boundaries are as defined in the Second Schedule, *Income Tax and Social Services Assessment Act 1936-1965*. The allowances are: Zone A, \$540 plus an amount equal to half the total deductions allowable to the taxpayer for the maintenance of dependants; and Zone B, \$90 plus an amount equal to one twelfth of the total deductions allowable to the taxpayer for the maintenance of dependants. Members of the defence forces serving in certain overseas localities for more than half the year of income are also entitled to a deduction of the same amount as residents of Zone A.

Income tax is levied on the taxable income remaining after making these deductions and the concessional deductions to which reference is made in the following paragraphs.

Concessional deductions

Concessional allowances for dependants, medical and dental expenses, life insurance and superannuation contributions, etc. are made by way of a deduction from income. The maximum deduction allowed for the income year 1965-66 for each dependant or for a housekeeper employed by the taxpayer is shown in the following table.

Dependant, etc. (resident)	Maximum deduction(a)
Spouse	\$ 286
Daughter-housekeeper(b)	286
Housekeeper(c)	286
Parent or parent-in-law	286
One child under 16 years of age	182
Other children under 16 years of age	130
Invalid relative(d)	182
Child 16 to 21 years receiving full-time education	182

(a) These deductions are allowed only if the dependant is a resident of Australia. If the dependant is maintained for part only of the year, a partial deduction is allowed. (b) Of a widower or widow. (c) Caring for a spouse in receipt of an invalid pension, or caring for children under 16 years of age of a widower or widow. (d) Child, step-child, brother or sister over 16 years of age.

When the dependant maintained derives separate income, the amount of the concessional deduction is reduced by \$2 for every \$2 by which the separate net income exceeds \$130. Separate net income includes age and invalid pensions but not child endowment. Scholarships are excluded except insofar as they relate to maintenance.

For the 1965-66 income year, medical expenses (less amounts recouped from hospital and medical funds) paid by a taxpayer who is a resident, in respect of himself or dependants, including children under twenty-one years of age, are allowed as a concessional deduction. Medical expenses include payments made to a legally qualified medical practitioner, nurse or chemist, or to a hospital, in respect of an illness or operation, payments for dental services, payments for therapeutic treatment and eye tests, expenditure on medical or surgical appliances, artificial limbs or eyes, hearing aids and spectacles, the remuneration of an attendant of a person who is blind or confined to a bed or invalid chair, and payments for the maintenance of a trained dog used for the guidance of a blind person.

Other concessional deductions allowed to resident taxpayers include: (i) payments of life insurance premiums and contributions to superannuation funds and friendly societies, not

exceeding an aggregate of \$800, (ii) payments to medical or hospital benefits funds, (iii) funeral expenses of a dependant not exceeding \$100, and (iv) expenditure incurred for the full-time education of children or dependants who are less than twenty-one years of age, with a maximum of \$300 for each child or dependant.

Effective exemption from tax

For the income years 1950-51 to 1962-63 taxpayers without dependants were exempt from income tax if their income did not exceed \$208. For 1963-64 to 1965-66 this exemption was \$416. The effect of the deductions for dependants was to exempt resident taxpayers up to the incomes shown hereunder.

RESIDENT TAXPAYERS: EFFECTIVE EXEMPTIONS FROM TAX (\\$)

Taxpayer with—	Income years		
	1953-54 to 1956-57	1957-58 to 1962-63	1963-64 to 1965-66
No dependants	208	208	416
Wife	468	494	702
Wife and one child	624	676	884
Wife and two children	728	806	1,014
Wife and three children	832	936	1,144
Wife and four children	936	1,066	1,274

For the 1965-66 income year an aged person (i.e. a man who has attained the age of sixty-five years or a woman who has attained the age of sixty years) is exempt from income tax if his or her net income (i.e. gross income less expenses of earning that income) does not exceed \$988. If the net income exceeds \$988 but does not exceed \$1,148 the tax cannot exceed nine-twentieths of the excess of the net income over \$988. An aged person who contributes to the maintenance of a spouse is exempt from tax if the combined net incomes of the taxpayer and the spouse do not exceed \$1,872. Where their combined incomes exceed \$1,872 the tax payable by the taxpayer (provided his net income does not exceed \$2,700) is limited to nine-twentieths of the excess of their combined net income over \$1,872.

Rates of income tax on individuals

The table on page 818 shows the rates of income tax for income years 1953-54 to 1965-66.

The minimum amount of income tax payable is \$1 and amounts payable and rebates are calculated to the nearest ten cents.

For primary producers the rate of income tax for the current year is determined by the average of the taxable incomes for the five years up to and including the current year. A taxpayer may elect not to have these averaging provisions applied to his assessment, but the election, once made, is irrevocable. The application of the averaging provisions is limited to that part of the taxable income which does not exceed \$8,000. When the taxable income does exceed \$8,000, the balance is taxed at ordinary rates applicable to that part. When the taxable income is less than \$8,000, the rate of tax for averaging purposes is limited to the rate on a taxable income of \$8,000.

The taxable income, including any abnormal receipts, of actors, artists, composers, inventors, etc., is taxed at the rate appropriate to the normal taxable income plus one-third of the abnormal receipts.

Interest on Commonwealth loans issued prior to 1 January 1940 is subject to the condition that it shall not be taxed at rates higher than those for 1930-31. Interest derived from bonds, debentures, stocks or other securities issued after 1 January 1940 by the Commonwealth, together with interest on certain State semi-governmental loans issued free of State income tax, is subject to a rebate of 10 cents for each \$1 included in the taxable income.

INCOME TAX—INDIVIDUALS: RATES OF INCOME TAX
1953-54 TO 1965-66

Total taxable income		1953-54		1954-55 to 1964-65(a)		1965-66(b)	
Column 1	Column 2	Tax on amount in column 1	Tax on each \$ of balance of income	Tax on amount in column 1	Tax on each \$ of balance of income	Tax on amount in column 1	Tax on each \$ of balance of income
Exceeding	Not exceeding						
\$	\$	\$	cents	\$	cents	\$	cents
Nil	200	Nil	0.42	Nil	0.42	Nil	0.40
200	300	0.83	1.67	0.83	1.25	0.80	1.20
300	400	2.50	3.75	2.08	2.92	2.00	2.90
400	500	6.25	5.42	5.00	4.58	4.90	4.90
500	600	11.67	7.08	9.58	6.25	9.40	6.10
600	800	18.75	9.17	15.83	8.33	15.50	8.20
800	1,000	37.08	11.67	32.50	10.83	31.90	10.80
1,000	1,200	60.42	13.75	54.17	12.50	53.50	12.50
1,200	1,400	87.92	15.83	79.17	14.17	78.50	14.20
1,400	1,600	119.58	17.50	107.50	15.83	106.90	15.90
1,600	1,800	154.58	19.17	139.17	17.50	138.70	17.60
1,800	2,000	192.92	20.83	174.17	19.17	173.90	19.30
2,000	2,400	234.58	23.33	212.50	21.67	212.50	21.60
2,400	2,800	327.92	26.67	299.17	24.58	298.90	24.60
2,800	3,200	434.58	29.58	397.50	27.08	397.30	27.10
3,200	3,600	552.92	32.50	505.83	29.58	505.70	29.60
3,600	4,000	682.92	35.42	624.17	32.08	624.10	32.10
4,000	4,800	824.58	38.75	752.50	35.42	752.50	35.40
4,800	5,600	1,134.58	41.67	1,035.83	38.33	1,035.70	38.30
5,600	6,400	1,467.92	44.58	1,342.50	41.25	1,342.10	41.20
6,400	7,200	1,824.58	47.50	1,672.50	43.75	1,671.70	43.80
7,200	8,000	2,204.58	50.42	2,022.50	46.25	2,022.10	46.30
8,000	8,800	2,607.92	53.33	2,392.50	48.75	2,392.50	48.70
8,800	10,000	3,034.58	56.67	2,782.50	51.67	2,782.10	51.70
10,000	12,000	3,714.58	60.00	3,402.50	55.00	3,402.50	55.00
12,000	16,000	4,914.58	62.92	4,502.50	57.92	4,502.50	57.90
16,000	20,000	7,431.25	65.83	6,819.17	60.42	6,818.50	60.40
20,000	32,000	10,064.58	68.75	9,235.83	63.33	9,234.50	63.30
32,000	upwards	18,314.58	70.00	16,835.83	66.67	16,830.50	66.70

(a) For the 1959-60, 1961-62, 1962-63, and 1963-64 income years a rebate of 5 per cent was allowable on the tax calculated from this schedule. (b) Additional tax equal to 2½ per cent of the tax at general rates is also payable for the 1965-66 financial year.

Taxes on specified incomes

The following table shows the income tax payable by taxpayers, with various incomes and numbers of dependants, on income derived in the years, 1959-60 to 1965-66.

INCOME TAX ON SPECIFIED INCOMES, 1959-60 TO 1965-66

(\$)

Income(a)	1959-60	1960-61	1961-62 and 1962-63	1963-64	1964-65	1965-66
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TAXPAYER WITH NO DEPENDANTS

300 . .	2.00	2.10	2.00
400 . .	4.80	5.00	4.80
500 . .	9.10	9.60	9.10	9.10	9.60	9.60
600 . .	15.00	15.80	15.00	15.00	15.80	15.90
700 . .	23.00	24.20	23.00	23.00	24.20	24.30
800 . .	30.90	32.50	30.90	30.90	32.50	32.70
1,000 . .	51.50	54.20	51.50	51.50	54.20	54.80
1,200 . .	75.20	79.20	75.20	75.20	79.20	80.50
1,600 . .	132.20	139.20	132.20	132.20	139.20	142.20
2,000 . .	201.90	212.50	201.90	201.90	212.50	217.80
3,000 . .	429.10	451.70	429.10	429.10	451.70	462.80
4,000 . .	714.90	752.50	714.90	714.90	752.50	771.30
6,000 . .	1,432.10	1,507.50	1,432.10	1,432.10	1,507.50	1,544.60
10,000 . .	3,232.40	3,402.50	3,232.40	3,232.40	3,402.50	3,487.60

TAXPAYER WITH DEPENDENT WIFE

300 . .	..	..	..	..	..	..
400 . .	..	..	..	..	..	..
500 . .	1.00	1.00	1.00	..	..	..
600 . .	2.40	2.50	2.40	..	..	..
700 . .	5.30	5.60	5.30	..	..	..
800 . .	10.00	10.50	10.00	10.00	10.50	10.50
1,000 . .	24.00	25.30	24.00	24.00	25.30	25.50
1,200 . .	42.60	44.80	42.60	42.60	44.80	45.30
1,600 . .	90.50	95.30	90.50	90.50	95.30	97.00
2,000 . .	151.10	159.10	151.10	151.10	159.10	162.70
3,000 . .	357.60	376.40	357.60	357.60	376.40	385.50
4,000 . .	627.70	660.70	627.70	627.70	660.70	677.20
6,000 . .	1,320.00	1,389.50	1,320.00	1,320.00	1,389.50	1,423.80
10,000 . .	3,092.00	3,254.70	3,092.00	3,092.00	3,254.70	3,336.00

TAXPAYER WITH DEPENDENT WIFE AND ONE CHILD

300 . .	..	..	..	..	..	..
400 . .	..	..	..	..	..	..
500 . .	..	..	..	..	..	..
600 . .	..	..	..	..	..	..
700 . .	1.10	1.20	1.10	..	..	..
800 . .	2.90	3.00	2.90	..	..	..
1,000 . .	11.00	11.60	11.00	11.00	11.60	11.60
1,200 . .	25.50	26.80	25.50	25.50	26.80	27.00
1,600 . .	67.20	70.70	67.20	67.20	70.70	71.70
2,000 . .	122.00	128.40	122.00	122.00	128.40	131.10
3,000 . .	315.00	331.60	315.00	315.00	331.60	339.70
4,000 . .	573.80	604.00	573.80	573.80	604.00	619.10
6,000 . .	1,250.60	1,316.40	1,250.60	1,250.60	1,316.40	1,348.90
10,000 . .	3,002.70	3,160.70	3,002.70	3,002.70	3,160.70	3,239.60

(a) Income remaining after allowing all deductions other than deductions for dependants.

INCOME TAX ON SPECIFIED INCOMES, 1959-60 TO 1965-66—continued
(£)

Income(a)	1959-60	1960-61	1961-62 and 1962-63	1963-64	1964-65	1965-66
TAXPAYER WITH DEPENDENT WIFE AND TWO CHILDREN						
300 . . .	..	..	..	..	..	..
400 . . .	..	..	..	..	..	..
500 . . .	..	..	..	..	..	..
600 . . .	..	..	..	..	..	..
700 . . .	..	..	..	..	..	..
800 . . .	..	..	..	..	..	..
1,000 . . .	4.80	5.10	4.80	..	..	..
1,200 . . .	15.20	16.00	15.20	15.20	16.00	16.00
1,600 . . .	51.70	54.40	51.70	51.70	54.40	55.10
2,000 . . .	102.40	107.80	102.40	102.40	107.80	109.90
3,000 . . .	284.70	299.70	284.70	284.70	299.70	306.90
4,000 . . .	537.30	565.60	537.30	537.30	565.60	579.60
6,000 . . .	1,203.30	1,266.60	1,203.30	1,203.30	1,266.60	1,297.90
10,000 . . .	2,938.80	3,093.50	2,938.80	2,938.80	3,093.50	3,170.70

(a) Income remaining after allowing all deductions other than deductions for dependants.

Company income taxes

For taxation purposes companies are divided into two main groups—private and public. Broadly, a private company is defined as a company in which all the issued shares are held by not more than twenty persons, or which is capable of being controlled by not more than seven persons, and which is not a company in which the public is substantially interested, or is a subsidiary of a public company. All other companies are regarded as public companies. Both private and public companies pay primary tax assessed on a taxable income ascertained on the same principles as for individuals. No such system of a 'pay-as-you-earn' is in operation in respect of companies.

Dividends received are assessable income; however, resident companies receive a rebate at the average rate on the amount of dividends included in the taxable income, while this rebate is not allowed to non-resident companies.

Rates of tax. A private company incurs liability for additional tax on its undistributed income if it fails to make a sufficient distribution of income within a specified period after the close of the year of income. The tax is levied on the undistributed amount which, for practical purposes, is the taxable income less—(a) primary income tax payable; (b) retention allowance (i.e. the proportion of the reduced distributable income which a company may retain without incurring liability for undistributed income tax); and (c) certain dividends paid by the company.

The rates of primary tax for all companies and additional tax for private companies applicable to income years 1952-53 to 1964-65 are shown in the following table.

RATES OF TAX: COMPANIES, 1952-53 TO 1964-65 INCOME YEARS
(Cents per \$)

Income year	Private company			Public company(a)	
	Up to \$10,000	On remainder of taxable income	Rate of additional tax on undistributed income	Up to \$10,000	On remainder of taxable income
1952-53 to 1954-55 . . .	20	30	50	30	35
1955-56	25	35	50	35	40
1956-57 to 1958-59 . . .	22½	32½	50	32½	37½
1959-60 to 1962-63 . . .	25	35	50	35	40
1963-64	27½	37½	50	37½	42½
1964-65	27½	37½	50	37½	42½

(a) Excludes co-operative, non-profit and life insurance. See text following for 1964-65 rates of tax for these companies.

For non-resident companies rate of tax (cents per dollar) on dividends only was: up to \$10,000 and remainder of taxable income respectively—1951-52 to 1954-55, 25 cents and 35 cents; 1955-56, 30 cents and 40 cents; 1956-57 to 1958-59, 27½ cents and 37½ cents; 1959-60 to 1962-63, 30 cents and 40 cents; 1963-64 and 1964-65, 32½ cents and 42½ cents.

For 1964-65, companies excluded from the preceding table were taxed at the following rates (cents per dollar): up to \$10,000 and remainder of taxable income respectively—co-operative, 32½ cents and 42½ cents; friendly society dispensaries (non-profit), 32½ cents and 32½ cents; other non-profit, 32½ cents and 42½ cents; mutual life insurance, 27½ cents and 37½ cents; other life insurance—mutual income, 27½ cents and 37½ cents, other income, 37½ cents and 42½ cents.

For the income years 1952-53 to 1957-58, 1958-59 to 1961-62, and 1962-63 to 1964-65 the retention allowance (see page 820) was the following proportion of the reduced distributable income.

RETENTION ALLOWANCE: PRIVATE COMPANIES
1952-53 TO 1964-65
(Per cent)

Reduced distributable income	1952-53 to 1957-58	1958-59 to 1961-62	1962-63 to 1964-65
First \$2,000 or part	50	50	..
Next \$2,000 „ „	40	40	..
Next \$2,000 „ „	35	..	..
Next \$2,000 „ „	30	..	..
First \$10,000 „ „ . . . .	..	..	50
Next \$10,000 „ „ . . . .	..	..	45
Balance	25	35	40

In addition to the foregoing proportions, 10 per cent of distributable income from property, except dividends from other private companies, is also allowed.

For the income years 1952-53 to 1964-65 the reduced distributable income was calculated by deducting from the taxable income the primary tax payable and the amount of all property income included in taxable income. The additional tax on undistributed income was imposed at a flat rate of 50 cents in the dollar on the undistributed amount.

Income tax assessments

1962-63 income year. The following tables show, for the 1962-63 income year, the number of taxpayers, income, and net income tax assessed for individuals and resident and non-resident companies. For further information of this nature see the annual bulletin *Commonwealth Taxation Assessments* issued by this Bureau.

COMMONWEALTH INCOME TAX ASSESSMENTS(a): TAXPAYERS, ACTUAL INCOME(b), TAXABLE INCOME(c) AND NET TAX ASSESSED—RESIDENT INDIVIDUALS, BY GRADE OF INCOME AND BY STATE, ETC., OF ASSESSMENT
(Income derived in the year 1962–63)

Grade of actual income(b) and State or Territory of assessment	Number of taxpayers			Actual income(b)	Taxable income(c)			Net tax assessed
	Males	Females	Total	Total	Salary and wages	Other income	Total	
\$	\$			\$'000	\$'000	\$'000	\$'000	\$'000
210– 399	59,634	106,816	166,450	51,758	40,724	8,546	49,270	384
400– 599	63,726	123,735	187,461	93,566	69,112	16,802	85,912	1,458
600– 799	77,231	133,206	210,437	147,416	108,182	24,480	132,662	3,844
800– 999	91,072	147,164	238,236	214,580	155,764	34,390	190,152	7,618
1,000– 1,199	100,469	156,167	256,636	282,062	199,800	47,310	247,110	12,548
1,200– 1,399	107,926	181,967	289,893	376,896	271,890	56,078	327,968	19,850
1,400– 1,599	122,791	165,401	288,192	431,928	305,792	63,788	369,580	25,418
1,600– 1,799	172,768	117,455	290,223	493,994	336,836	70,028	406,864	30,678
1,800– 1,999	248,290	81,003	329,293	626,002	418,600	75,588	494,188	39,844
2,000– 2,199	294,796	53,818	348,614	731,962	483,272	79,366	562,636	48,676
2,200– 2,399	290,510	35,758	326,268	749,638	486,230	79,596	565,826	52,192
2,400– 2,599	256,222	25,563	281,785	703,796	448,356	78,816	527,170	51,808
2,600– 2,799	220,868	19,625	240,493	648,076	406,408	77,488	483,898	50,440
2,800– 2,999	174,590	14,709	189,299	547,968	336,164	72,706	408,870	45,146
3,000– 3,999	466,880	43,638	510,518	1,734,806	995,362	309,846	1,305,208	164,938
4,000– 5,999	230,405	31,389	261,794	1,240,566	565,820	401,428	967,246	160,056
6,000– 7,999	60,356	10,300	70,656	482,516	156,410	238,928	395,338	85,524
8,000– 9,999	25,371	4,309	29,680	263,358	67,598	155,042	222,640	57,974
10,000–19,999	27,541	4,841	32,382	420,982	84,234	283,144	367,378	126,102
20,000–29,999	3,207	573	3,780	89,556	15,182	64,382	79,566	35,418
30,000 and over	1,355	275	1,630	77,110	11,388	54,800	66,186	34,792
Central Office	9,233	6,723	15,956	99,048	19,092	64,766	83,858	25,802
New South Wales	1,157,942	549,147	1,707,089	3,969,002	2,383,248	780,086	3,163,336	405,934
Victoria	871,767	447,823	1,319,590	3,022,606	1,767,782	655,078	2,422,860	311,494
Queensland	422,623	174,213	596,836	1,305,308	667,110	337,214	1,004,324	122,706
South Australia	291,501	134,350	425,851	924,040	518,778	213,958	732,736	85,752
Western Australia	215,220	90,717	305,937	674,652	358,952	170,612	529,564	64,524
Tasmania	98,177	41,246	139,423	297,428	173,652	55,478	229,130	25,848
Northern Territory	7,273	2,522	9,795	27,620	14,986	3,098	18,084	2,254
Australian Capital Territory	22,272	10,971	33,243	88,830	59,518	12,258	71,776	10,392
Total residents	3,096,008	1,457,712	4,553,720	10,408,536	5,963,118	2,292,548	8,255,668	1,054,706
Total non-residents	1,140	587	1,727	7,120	4,190	2,546	6,736	1,354
Total residents and non-residents	3,097,148	1,458,299	4,555,447	10,415,656	5,967,308	2,295,094	8,262,404	1,056,060

(a) Assessments in respect of 1962–63 incomes issued to 30 September 1964. Assessments issued after that date are not included. (b) Actual income is defined briefly as 'Gross income including exempt income less expenses incurred in gaining that income'. (c) Taxable income is the income remaining after deducting from assessable income all allowable deductions.

COMMONWEALTH INCOME TAX ASSESSMENTS(a): TAXPAYERS, ACTUAL INCOME(b), TAXABLE INCOME(c) AND NET TAX ASSESSED—RESIDENT AND NON-RESIDENT COMPANIES, BY GRADE OF INCOME AND STATE, ETC. OF ASSESSMENT

(Income derived in the year 1962-63)

Grade of taxable income(c) and State or Territory of assessment					Number of taxpayers	Actual income(b)	Taxable income(c)	Net tax assessed (d)
\$	\$					\$'000	\$'000	\$'000
2-	1,999	.	.	.	19,242	21,188	13,506	3,338
2,000-	9,999	.	.	.	22,485	132,032	120,654	28,556
10,000-	19,999	.	.	.	8,809	129,224	120,896	31,504
20,000-	39,999	.	.	.	4,699	139,998	130,362	37,352
40,000-	99,999	.	.	.	2,985	198,932	182,616	54,774
100,000-	199,999	.	.	.	1,168	169,878	161,152	49,964
200,000-	399,999	.	.	.	622	183,660	172,530	53,168
400,000-	999,999	.	.	.	413	263,530	250,368	75,024
1,000,000-	1,999,999	.	.	.	106	147,912	141,824	45,488
2,000,000 and over		.	.	.	123	867,290	717,060	220,806
Central Office		.	.	.	3,328	1,110,956	931,104	298,874
New South Wales		.	.	.	24,199	456,736	433,328	117,910
Victoria		.	.	.	17,466	344,358	326,682	89,400
Queensland		.	.	.	5,004	111,218	104,138	33,640
South Australia		.	.	.	5,746	103,062	98,174	28,272
Western Australia		.	.	.	2,275	61,062	54,884	17,422
Tasmania		.	.	.	1,210	26,946	25,988	7,778
Northern Territory		.	.	.	156	3,892	2,940	902
Australian Capital Territory		.	.	.	1,268	35,414	33,732	5,776
Total		.	.	.	60,652	2,253,644	2,010,970	599,972

(a) Assessments in respect of 1962-63 incomes issued to 31 December 1964. Assessments issued after that date are not included. (b) Actual income is defined briefly as 'Gross income including exempt income less expenses incurred in gaining that income'. (c) Taxable income is the income remaining after deducting from assessable income all allowable deductions. (d) Excludes additional tax levied on the undistributed income of private companies.

Income tax on residents, by grade of income. Individual income taxes assessed on residents are distributed according to grades of actual income in the following table. The year shown in each case is the year of income of the taxpayer. Assessments issued after the normal assessing period are not included.

**COMMONWEALTH INCOME TAX ASSESSMENTS: TAXPAYERS, AND NET TAX
ASSESSED—RESIDENT INDIVIDUALS, BY GRADE OF ACTUAL INCOME(a)**

(Income years 1959-60 to 1962-63)

Grade of actual income (a)		Income year							
		1959-60		1960-61		1961-62		1962-63	
		No. of tax- payers	Net tax assessed	No. of tax- payers	Net tax assessed	No. of tax- payers	Net tax assessed	No. of tax- payers	Net tax assessed
\$	\$		\$'000		\$'000		\$'000		\$'000
210- 399	.	159,479	374	159,541	394	159,892	372	166,450	384
400- 599	.	183,675	1,464	185,229	1,540	181,445	1,414	187,461	1,458
600- 799	.	215,557	3,998	215,468	4,200	207,996	3,830	210,437	3,844
800- 999	.	237,864	7,636	244,387	8,268	240,502	7,744	238,236	7,618
1,000- 1,199	.	261,256	12,936	265,308	13,806	255,915	12,530	256,636	12,548
1,200- 1,399	.	288,149	19,698	291,960	20,972	287,667	19,620	289,893	19,850
1,400- 1,599	.	284,299	24,374	281,872	25,706	285,783	25,056	288,192	25,418
1,600- 1,799	.	321,739	32,138	302,734	32,570	295,816	30,702	290,223	30,678
1,800- 1,999	.	360,892	41,866	342,070	42,534	338,675	40,406	329,293	39,844
2,000- 2,199	.	355,821	48,092	353,179	50,454	362,021	49,708	348,614	48,676
2,200- 2,399	.	307,052	48,386	312,243	51,376	328,910	52,372	326,268	52,192
2,400- 2,599	.	247,214	44,906	266,540	51,036	275,566	50,440	281,785	51,808
2,600- 2,799	.	191,397	39,842	216,529	47,642	222,923	46,540	240,493	50,440
2,800- 2,999	.	146,275	34,960	167,256	42,018	172,220	41,396	189,299	45,146
3,000- 3,999	.	364,735	118,256	433,485	148,692	448,352	145,148	510,518	164,938
4,000- 5,999	.	171,906	107,662	208,536	135,850	226,306	139,076	261,794	160,056
6,000- 7,999	.	48,000	60,372	55,817	73,470	58,771	72,670	70,656	85,524
8,000- 9,999	.	21,205	42,928	23,604	49,682	24,652	48,988	29,680	57,974
10,000-19,999	.	24,441	97,610	26,167	109,372	27,154	106,488	32,382	126,102
20,000-29,999	.	3,100	30,076	3,014	30,490	3,112	29,672	3,780	35,418
30,000-59,999	.	1,269	22,848	1,237	22,792	1,208	21,166	1,393	23,778
60,000-99,999	.	144	5,616	152	5,888	153	5,330	168	5,786
100,000 and over	.	57	4,790	52	3,696	69	5,514	69	5,228
Total	.	4,195,526	850,828	4,356,380	972,448	4,405,108	956,182	4,553,720	1,054,706

(a) Actual income is defined briefly as 'Gross income including exempt income less expenses incurred in gaining that income'.

Yield of income taxes

Income taxes collected. The following table shows the amounts of taxes collected and the proportions of the several components in the years 1960-61 to 1964-65.

INCOME TAXES COLLECTED(a), 1960-61 TO 1964-65

Tax	Collection year				
	1960-61	1961-62	1962-63	1963-64	1964-65

AMOUNTS COLLECTED (\$'000)

Individuals—					
Instalments from salaries and wages	642,804	653,428	684,426	792,242	990,600
Direct cash payments	394,686	421,262	398,982	479,916	579,762
Companies	565,124	565,376	519,828	586,260	709,044
Superannuation funds . . . . .	..	..	15	130	162
Dividend (withholding)	11,920	16,233	17,930	15,936	16,039
Total	1,614,534	1,656,300	1,621,181	1,874,484	2,295,607

(a) Excludes collections of arrears of State income taxes existing prior to the introduction of the uniform tax arrangement.

INCOME TAXES COLLECTED(a), 1960-61 TO 1964-65—continued

Tax	Collection year				
	1960-61	1961-62	1962-63	1963-64	1964-65

PERCENTAGES

Individuals—					
Instalments from salaries and wages	39.81	39.45	42.22	42.26	43.15
Direct cash payments	24.45	25.43	24.61	25.60	25.26
Companies	35.00	34.13	32.06	31.28	30.89
Superannuation funds . . . . .	..	..	..	0.01	0.01
Dividend (withholding)	0.74	0.98	1.10	0.85	0.70
Total	100.00	100.00	100.00	100.00	100.00

(a) Excludes collections of arrears of State income taxes existing prior to the introduction of the uniform tax arrangement.

Income tax assessed. The amounts of income tax covered by statistical analyses of assessments for recent years are shown in the following table. The amounts are shown under the year of income of the taxpayer. Tax is usually paid by companies in the year following the year of income. Individuals pay tax in the year of income, but there is usually an adjustment in the following year. Tax assessed after the close of the normal assessing period is not included.

INCOME TAXES ASSESSED, 1958-59 TO 1962-63

(\$'000)

Tax	Income year—				
	1958-59	1959-60	1960-61	1961-62	1962-63
Individuals	756,438	852,952	973,402	956,974	1,056,060
Companies—					
Primary tax	463,220	585,712	552,954	536,336	599,972
Additional tax on undistributed income of private companies	2,548	2,920	2,602	1,976	1,532
Total	1,222,206	1,441,584	1,528,958	1,495,286	1,657,564

Refunds of revenue. Income tax collections, as previously shown, are net amounts after refunds of revenue made in the course of the year. Refunds are of two types—those charged to special appropriations under authority of the Income Tax and Social Services Contribution Assessment Act and those charged to special appropriations under authority of the Audit Act. Income tax instalment refunds, by far the greatest part of income tax refunds, are made when the instalments deducted during the year exceed the tax assessed on incomes for that year. Refunds made from special appropriations under section 37A of the Audit Act include refunds of moneys paid to the revenue in error, refunds of tax overpaid, refunds due to the amendment of assessments, etc. Refunds of income tax during the collection years 1960-61 to 1964-65 were: 1960-61, \$186,348,604; 1961-62, \$211,035,328; 1962-63, \$236,625,942; 1963-64, \$242,421,772; and 1964-65, \$264,366,042.

CHAPTER 22

LOCAL GOVERNMENT

This chapter includes, in addition to information on the operation of local government authorities, information on the operation of certain semi-governmental authorities. The latter information is not comprehensive for this type of authority, and is included partly because of the association of the functions performed with those of local government authorities, and partly for convenience in preparation. Particulars of the activities of other semi-governmental authorities, e.g. transport, electricity and gas, and banking undertakings, for which only some financial statistics are given in this chapter, are included in the chapters relevant to those subjects.

Coverage

Local government authorities

In each State of the Commonwealth there exists a system of local government whose powers and responsibilities are in general similar, and cover such matters as the construction and maintenance of roads, streets and bridges, water, sewerage and drainage systems, and health and sanitary services, the supervision of building, and the administration of regulations relating to items such as weights and measures, slaughtering, the registration of dogs, etc. In addition to these obligatory functions, there are also many which may be performed by a local government authority either with or without the consent of the ratepayers or the Governor-in-Council. These include transport facilities, electricity, gas, and other business undertakings, hospitals, charitable institutions, recreation grounds, parks, baths, libraries, museums, etc.

The system is based on the principle of a grant of specific powers by the State legislatures to the local authorities, their autonomy, however, being more or less limited by the provision for general supervision by a department of the central government or by the Governor-in-Council. Otherwise, within the scope of the Acts under which they are constituted or which they have to administer, they are responsible only to the ratepayers. While the broad pattern of local government throughout the States of Australia is similar, the range of activities, election of officers, methods of valuation and rating powers, etc. differ considerably.

The areas over which local government bodies exercise general control, numbering 902, are known in New South Wales as cities, municipalities and shires; in Victoria as cities, towns, boroughs and shires; in Queensland as cities, towns and shires; in South Australia as cities, corporate towns and district council areas; in Western Australia as cities, towns and shires; and in Tasmania as cities and municipalities. In New South Wales some local government authorities in an area have combined to provide services such as electricity, water, sewerage and drainage—e.g. the county councils. Within shires there are also some municipal units known as urban areas. Apart from the more thinly populated parts of New South Wales and South Australia, and the Commonwealth Territories (except for the City of Darwin), practically the whole of Australia comes within local government jurisdiction.

The financial statistics in the following section are classified under the headings of Ordinary Services and Business Undertakings. The former covers the obligatory and general functions referred to above. Business Undertakings include public utilities such as water supply, sewerage, electricity, gas, transport and hydraulic power undertakings, and other miscellaneous works such as abattoirs, quarries, ice works, cinemas, etc.

Semi-governmental authorities

In addition to local government authorities, a large number of authorities have been set up to control specific activities, which are often identical with some of those performed by either, or both, of the other classes of public authority—central government and local government—and a complete picture of any field of activity for a State or Australia as a whole cannot be obtained without reference to each class operating in that particular field. These semi-governmental authorities differ primarily from local government authorities in that their operations are restricted to the specific activity for which they were constituted—e.g. roads and bridges, water and sewerage, electricity and irrigation, harbours, or tramways, etc.—i.e. each dispenses a specific service throughout an area as distinct from the general services of the local authority. In the sections which deal with debt, roads and bridges, water supply and sewerage, harbours, and fire brigades particulars are included of the more important of these authorities which operate within the range covered by this chapter.

Roads, bridges, etc.

The construction and maintenance of roads, bridges and ferries are generally part of the functions of local authorities, but in each State there exists a central road authority or a government department whose duties relate to the construction, reconstruction and maintenance of 'main' and 'developmental' roads, the distribution of funds to local bodies, and the supervision and co-ordination of road construction and policy throughout the State. Owing to difficulty in obtaining complete particulars of receipts and expenditure of the various local governing bodies in respect of roads under their control, the details of receipts and expenditure given on pages 837-44 are those of central governments only, relating either to the supervisory board or commission in the State or to direct activities of a department. However, estimates of the aggregate net expenditure of all public authorities concerned with roads and bridges in Australia are given on page 846 of that section. On pages 829-30 some information is given of the revenue and expenditure of local government authorities in respect of roads.

Water supply and sewerage

In the cities of Sydney and Melbourne the control of water supply and sewerage is in the hands of special boards, while in Adelaide and Perth these services are under the direct supervision of government departments. In most of the other cities and towns the municipal councils or, in some cases, water trusts are the controlling bodies, which either construct the works out of their own resources or take them over after they have been constructed by the government.

Harbours

The majority of the harbours in Australia are managed by boards, the members of which are either elected by persons interested, or appointed by the government. In some instances, however, they are directly controlled by the government.

Fire brigades

In all the States the management of fire brigades is undertaken by boards. These boards usually comprise members elected by the councils of municipalities and insurance companies within the districts placed under their jurisdiction, and one or more members appointed by the government. Occasionally volunteer or country fire brigades are represented.

Local government authorities**New South Wales**

For purposes of local government the whole of the Eastern and Central land divisions and more than two-thirds of the sparsely populated Western division have been divided into cities, municipalities (most principal towns) and shires (mainly large rural areas, some of which include important towns). At the end of 1965 the area incorporated was 272,000 square miles, or nearly nine-tenths of the total area of the State. All local government authorities in the State are subject to the general provisions of the Local Government Act. Municipalities and shires may combine to form county councils for the establishment and conduct of services of joint benefit, e.g. electricity, water, gas, abattoirs. At 31 December 1965 there were fifty-three county councils, including the Sydney County Council.

Victoria

Local government is established throughout the State, the various divisions being termed cities, towns, boroughs, or shires. The only unincorporated areas are French Island (41,600 acres) in Westernport Bay, Lady Julia Percy Island (652 acres) off Port Fairy, Bass Strait Islands (966 acres), part of Gippsland Lakes (81,920 acres), and Tower Hill (1,460 acres) adjacent to the Borough of Kororoit. Melbourne and Geelong were incorporated under special statutes prior to the establishment of a general system of local government, but are now subject to several provisions of the Local Government Act.

Queensland

The whole of the State (except certain islands along the coast, the Dawson Valley Irrigation Area and the Somerset Dam Area) is incorporated into cities, towns and shires under '*The Local Authorities Act of 1902*' and its amendments.

South Australia

The settled portion of South Australia is incorporated, being mostly under municipal corporations in the larger cities and towns and district councils in the agricultural areas.

Western Australia

Local government is established throughout the State, the divisions being cities, towns and shires.

Tasmania

The whole State is divided into municipal districts, Hobart and Launceston being incorporated as cities under separate Acts.

Area, population, dwellings, and value of ratable property

The area, population, dwellings, and value of ratable property in the incorporated areas of each State are shown for the year 1963-64 in the following table. The valuations relate to ratable property only and exclude government and other non-ratable property, whose value in the aggregate is considerable. In some cases councils rate on annual value, or unimproved capital value, or improved capital value, or partly on each of these bases of valuation. The amounts stated are the totals for the areas rated according to each basis of valuation. In this table particulars of dwellings are in accordance with the definition used in the 1961 Census, and are compiled from information collected on the Census Schedules. For the purpose of the Census a dwelling was defined as any habitation occupied by a household group living together as a domestic unit, whether comprising the whole or only part of a building. The term has, therefore, a very wide reference and includes, in addition to houses and flats, a great variety of dwellings ranging from a single-roomed shack to a multi-roomed hotel or institution. Unoccupied dwellings include vacant dwellings available for sale and renting, 'week-end' and holiday dwellings, and other dwellings temporarily unoccupied on the night of the Census. Dwellings being built are not included.

LOCAL GOVERNMENT AUTHORITIES: AREA, POPULATION, DWELLINGS, AND VALUE OF RATABLE PROPERTY, STATES, 1963-64

Location	Number	Area '000 acres	Population '000 (a)	Dwellings		Value of ratable property		
				Occupied	Unoccupied	Unimproved capital value	Improved capital value	Annual value
				No. (b)	No. (b)	\$'000	\$'000	\$'000
New South Wales(c)—								
Metropolitan—								
Capital city	1	7	168	48,599	2,311	536,784	1,218,121	89,808
Other	34	702	2,179	570,916	22,825	2,505,179	6,559,834	400,495
Outside metropolitan area	190	173,648	1,757	441,537	47,267	1,461,177	n.a.	n.a.
Total, New South Wales	225	174,357	4,103	1,061,052	72,403	4,503,140	n.a.	n.a.
Victoria(d)—								
Metropolitan—								
Capital city	1	8	76	18,971	740	n.a.	704,236	35,212
Other	45	715	1,986	505,637	16,093	n.a.	4,073,446	206,437
Outside metropolitan area(e).	164	55,387	1,060	264,769	30,469	n.a.	3,008,984	151,813
Total, Victoria	210	56,110	3,122	789,377	47,302	n.a.	7,786,666	393,462
Queensland(a)—								
Capital city	1	246	632	160,588	5,441	394,438	n.a.	n.a.
Other(f)	130	425,980	953	236,845	28,475	545,583	n.a.	n.a.
Total, Queensland	131	426,226	1,584	397,433	33,916	940,021	n.a.	n.a.
South Australia(a)—								
Metropolitan—								
Capital city	1	4	21	5,846	437	121,278	302,000	15,050
Other	20	100	587	158,054	5,157	n.a.	1,132,000	56,626
Outside metropolitan area	120	36,857	406	95,205	11,208	n.a.	920,000	45,976
Total, South Australia	141	36,961	1,014	259,105	16,802	n.a.	2,354,000	117,652
Western Australia(a)—								
Metropolitan—								
Capital city	1	16	96	26,845	1,001	5,837	n.a.	13,254
Other	16	107	361	88,003	2,688	107,054	n.a.	9,560
Outside metropolitan area	129	624,466	330	79,469	10,016	168,443	n.a.	4,334
Total, Western Australia	146	624,589	787	194,317	13,705	281,333	n.a.	27,149

For footnotes see next page.

CORRIGENDUM

page 828

add to text preceding table:

In the following table 'Metropolitan Areas' include the whole of some shires and municipalities *part only* of which is regarded as metropolitan for Census and other purposes. This is because the financial activity of such areas cannot be split between the 'metropolitan' and 'other' sections. The Areas should not be compared with Census Metropolitan Areas.

LOCAL GOVERNMENT AUTHORITIES: AREA, POPULATION, DWELLINGS, AND VALUE OF RATABLE PROPERTY, STATES, 1963-64—continued

Location	Number	Area '000 acres	Population '000 (a)	Dwellings		Value of ratable property		
				Occu- pied No. (b)	Unoccu- pied No. (b)	Unim- proved capital value \$'000	Im- proved capital value \$'000	Annual value \$'000
Tasmania(a)—								
Metropolitan—								
Capital city	1	20	54	15,281	507	96,721	176,814	16,996
Other	2	92	66	14,483	795	35,678	120,956	8,074
Outside metropolitan area	46	16,774	244	61,494	7,280	139,231	505,689	32,442
Total, Tasmania	49	16,885	364	91,258	8,582	271,629	803,459	57,512

(a) Year ended 30 June 1964. (b) Particulars of dwellings as at Census 30 June 1961. (c) Year ended 31 December 1963. (d) Year ended 30 September 1964. (e) Excludes Yallourn Works Area under the jurisdiction of the State Electricity Commission. (f) Includes City of Redcliffe and that part of Pine Rivers Shire within the Metropolitan Area of Brisbane but outside the Brisbane City Area.

Local government finances

The following tables show the latest available financial statistics for local government authorities. The figures relate to the year 1963-64 except for New South Wales, where they relate to the year 1963. For further detail on local government finances see *State, Territory and Local Government Authorities' Finance and Government Securities*, Bulletin No. 3, 1964-65, issued by this Bureau.

Ordinary services. In the returns of revenue and expenditure for 1963-64 in the following tables the proceeds from loans and expenditure thereof have been excluded. The financial operations of business undertakings controlled by the various local government authorities are given in the next paragraph. The profits resulting from the working of these undertakings, where taken into general revenue, have been included.

LOCAL GOVERNMENT AUTHORITIES: ORDINARY SERVICES—REVENUE AND EXPENDITURE, STATES, 1963-64

	N.S.W. (a)	Vic. (b)	Qld (c)	S.A. (c)	W.A. (c)	Tas. (c)	Total
REVENUE (EXCLUDING LOAN RECEIPTS) (\$'000)							
Taxation—							
Rates (net)	99,584	58,350	34,301	16,968	11,189	6,196	227,853
Penalties	1,013	251					
Licences	2,054	491	408	205	211		3,447
Total, taxation	102,652	59,092	34,710	17,173	11,400	6,273	231,300
Public works and services—							
Sanitary and garbage services	9,100	3,675	6,435	166	1,063	318	20,757
Council properties	8,837	(d) 11,907	1,703	1,253	3,469	721	27,890
Street construction	6,379	4,589		(e) 8,532	1,550	12	21,062
Other	9,911	2,626	971	246	596	562	14,911
Total, public works, etc.	34,228	22,797	9,108	10,196	6,678	1,614	84,620
Governments grants—							
Roads	28,093	521	4,982	3,880	5,716	1,267	44,459
Other	4,158	3,918	672	437	248	825	10,257
Total, government grants	32,251	4,439	5,654	4,317	5,964	2,092	54,716
Profits from business under- takings . . . . .	..	950	..	..	..	..	950
Fees and fines . . . . .	..	778	..	..	170	..	947
All other . . . . .	..	968	(f) 14,916	150	4,005	499	20,538
Total revenue	169,130	89,023	64,388	31,836	28,217	10,478	393,072

For footnotes see next page.

LOCAL GOVERNMENT AUTHORITIES: ORDINARY SERVICES—REVENUE AND EXPENDITURE, STATES, 1963-64—continued

	N.S.W. (a)	Vic. (b)	Qld (c)	S.A. (c)	W.A. (c)	Tas. (c)	Total
EXPENDITURE (EXCLUDING LOAN EXPENDITURE) (\$'000)							
General administration	10,958	11,800	5,380	2,577	2,538	1,183	34,435
Debt services (excluding business undertakings—							
Interest	6,522	4,926	7,121	1,150	1,852	856	22,426
Redemption	11,424	6,156	7,478	1,852	2,773	847	30,532
Exchange	23	..	215	..	..	..	237
Other . . . . .	..	64	58	..	..	..	122
<i>Total, debt, etc.</i>	<i>17,969</i>	<i>11,146</i>	<i>14,872</i>	<i>3,003</i>	<i>4,625</i>	<i>1,703</i>	<i>53,318</i>
Public works and services—							
Roads, streets and bridges . .	74,185	29,642	17,125	19,823	8,668	4,160	153,603
Health administration	4,579	964	6,594	585	523	213	36,549
Sanitary and garbage services .	11,768	8,739	973	957	1,331	296	264
Street lighting	3,897	1,884	731	691	441	264	8,149
Council properties	21,189	(g) 16,002	7,489	2,934	7,502	1,733	56,850
Other	9,158	3,012	331	440	1,964	42	14,946
<i>Total, public works, etc.</i> .	<i>124,776</i>	<i>60,242</i>	<i>32,512</i>	<i>25,430</i>	<i>20,430</i>	<i>6,707</i>	<i>270,097</i>
Grants—							
Fire brigades	895	1,327	456	320	296	112	3,406
Hospitals and ambulances . . .	510	260	..	567	21	..	12,062
Other charities . . . . .	..	..	..	26	..	..	..
Other	(h) 4,986	(i) 3,584	1,636	95	122	254	..
<i>Total, grants</i>	<i>6,391</i>	<i>5,171</i>	<i>2,092</i>	<i>1,009</i>	<i>440</i>	<i>366</i>	<i>15,468</i>
All other	5,601	2,179	(j) 9,481	..	637	323	18,221
<i>Total expenditure</i>	<i>165,695</i>	<i>90,538</i>	<i>64,337</i>	<i>32,018</i>	<i>28,669</i>	<i>10,282</i>	<i>391,540</i>

(a) Figures for New South Wales relate to the year ended 31 December 1963 and are on an income and expenditure basis as distinct from those of other States which are on a cash basis. (b) Year ended 30 September 1964. (c) Year ended 30 June 1964. (d) Includes \$5,847,000 plant hire. (e) Includes \$5,526,000 reimbursement from Highways Department. (f) Includes the following reimbursements: \$4,234,000 from Main Roads Department, \$1,306,000 from other State Government Departments, and \$3,934,000 from other sources. (g) Includes \$1,573,000 plant and equipment. (h) To Main Roads Department. (i) Includes \$1,613,000 to Country Roads Board. (j) Includes expenditure on work done for reimbursement: for Main Roads Department \$4,322,000; for other State Government Departments \$1,333,000; other \$3,644,000.

LOCAL GOVERNMENT AUTHORITIES: ORDINARY SERVICES—REVENUE AND EXPENDITURE, STATES, 1960 TO 1964

(\$'000)

Year	N.S.W.(a)	Vic.(b)	Qld(c)	S.A.(c)	W.A.	Tas.(c)	Total
Revenue(d)—							
1960	122,047	65,728	51,186	21,333	(e) 18,875	6,808	285,977
1961	135,248	71,673	53,397	23,779	(e) 20,990	7,598	312,685
1962	150,438	78,063	56,940	26,658	(c) 21,073	8,406	341,578
1963	159,998	83,941	62,668	27,589	(c) 25,356	9,796	369,349
1964	169,130	89,023	64,388	31,836	(c) 28,217	10,478	393,072
Expenditure(d)—							
1960	117,822	64,590	51,262	21,796	(e) 18,730	6,820	281,021
1961	135,926	72,827	54,433	24,926	(e) 21,162	7,673	316,946
1962	149,928	78,142	56,093	26,814	(c) 20,763	8,161	339,900
1963	159,515	83,714	61,901	27,341	(c) 25,071	9,434	366,975
1964	165,695	90,538	64,337	32,018	(c) 28,669	10,282	391,540

(a) Years ended previous 31 December. (b) Years ended 30 September. (c) Years ended 30 June. (d) Excludes loan receipts or expenditure. (e) Municipalities—years ended 31 October; Road Districts—years ended 30 June.

Business undertakings. The tables following show, for 1963-64, particulars of the revenue and expenditure, other than loan, of business undertakings under the control of local government authorities. These particulars are not included in the foregoing tables.

**LOCAL GOVERNMENT AUTHORITIES: BUSINESS UNDERTAKINGS—REVENUE
AND EXPENDITURE, STATES, 1963-64**
(\\$'000)

	N.S.W. (a)	Vic. (b)	Qld (c)	S.A. (c)	W.A. (c)	Tas. (c)	Total
REVENUE (EXCLUDING LOAN RECEIPTS)							
Water supply and sewerage—							
Rates	8,161		5,407	..	..	2,947	25,444
Charges for services and sales of products	2,230	514	5,773	6	42	364	
Other (including grants)	(d) 2,264	14	1,032	..	..	429	
<i>Total, water supply, etc.</i>	12,655	528	12,211	6	42	3,740	29,183
Electricity and gas—							
Rates	1,155	..	17	..	..	..	1,171
Charges for services and sales of products	180,946	36,942	26,109	1,165	1,925	..	247,087
Other (including grants)	4,709	280	3,284	466	..	..	8,739
<i>Total, electricity, etc.</i>	186,810	37,222	29,410	1,630	1,925	..	256,997
Railways, tramways and omnibuses—							
Charges for services and sales of products . . . . .	..	..	7,692	..	..	..	7,692
Other (including grants) . . . . .	..	..	280	..	..	..	280
<i>Total, railways, etc.</i> . . . .	..	..	7,972	..	..	..	7,972
Other—	(e)	(f)	(g)	(h)	(i)	(j)	
Rates	27	..	22	..	..	..	49
Charges for services and sales of products	12,104	2,239	939	231	175	309	15,997
Other (including grants)	424	78	8	22	..	265	798
<i>Total, other</i>	12,555	2,317	969	253	175	574	16,843
Grand total	212,020	40,067	50,563	1,889	2,142	4,314	310,995

EXPENDITURE (EXCLUDING LOAN EXPENDITURE)

Water supply and sewerage—							
Working expenses	5,060	361	5,083	6	19	1,924	12,452
Depreciation	(k) -218	50	..	..	..	-168	..
Debt charges	5,129	137	5,175	..	35	1,967	12,443
Other (including transfers to general revenue and construction) . . . . .	..	5	1,370	..	..	52	1,427
<i>Total, water supply, etc.</i>	9,971	553	11,628	6	53	3,944	26,154
Electricity and gas—							
Working expenses	153,222	33,568	20,700	1,024	1,310	..	209,824
Depreciation	(k) 3,521	1,166	..	..	192	..	4,879
Debt charges	20,407	1,453	6,026	371	243	..	28,501
Other (including transfers to general revenue and construction) . . . . .	..	852	2,253	69	..	..	3,173
<i>Total, electricity, etc.</i>	177,149	37,039	28,979	1,464	1,746	..	246,378
Railways, tramways, and omnibuses—							
Working expenses . . . . .	..	..	7,804	..	..	..	7,804
Debt charges . . . . .	..	..	786	..	..	..	786
Other (including transfers to general revenue and construction) . . . . .	..	..	275	..	..	..	275
<i>Total, railways, etc.</i> . . . .	..	..	8,865	..	..	..	8,865
Other—	(e)	(f)	(g)	(h)	(i)	(j)	
Working expenses	11,394	1,732	427	254	150	377	14,333
Depreciation	75	120	..	..	..	..	195
Debt charges	583	224	101	2	..	51	961
Other (including transfers to general revenue and construction) . . . . .	..	216	167	19	..	..	402
<i>Total, other</i>	12,052	2,292	695	275	150	428	15,891
Grand total	199,171	39,883	50,167	1,745	1,949	4,372	297,288

(a) Year ended 31 December 1963. (b) Year ended 30 September 1964. (c) Year ended 30 June 1964.
 (d) Includes Government grant, \$1,511,000, for part of cost of new works borne by Government.
 (e) Abattoirs. (f) Abattoirs, hydraulic power undertakings, quarries, iceworks, and reinforced concrete pipe and culvert works. (g) Off-street car parking, municipal markets, hostels, hotels, and cinemas.
 (h) Quarries, hospitals and cinemas. (i) Quarries, canteen and abattoirs. (j) Abattoirs. (k) Net balance after deducting charge for debt redemption. The full amount of charge for debt redemption is included under debt charges.

Minus sign (—) indicates an excess of credits.

The next table shows the revenue and expenditure, other than loan, of local government business undertakings for the years 1959-60 to 1963-64.

**LOCAL GOVERNMENT AUTHORITIES: BUSINESS UNDERTAKINGS—REVENUE
AND EXPENDITURE, STATES, 1960 TO 1964**
(\$'000)

Year	N.S.W. (a)	Vic. (b)	Qld (c)	S.A. (c)	W.A.	Tas. (c)	Total
Revenue(d)—							
1960 . . .	145,581	33,010	30,659	1,202	(e) 1,792	2,974	215,217
1961 . . .	160,553	33,769	32,364	1,255	(e) 1,729	3,269	232,939
1962 . . .	175,489	35,424	35,718	1,311	(c) 1,536	3,691	253,170
1963 . . .	194,460	38,305	42,154	1,505	(c) 1,857	3,969	282,251
1964 . . .	212,020	40,067	50,563	1,889	(c) 2,142	4,314	310,995
Expenditure(d)—							
1960 . . .	139,255	32,404	30,961	1,251	(e) 1,771	2,942	208,583
1961 . . .	155,170	33,464	34,634	1,243	(e) 1,738	3,251	229,500
1962 . . .	167,923	35,353	35,452	1,297	(c) 1,422	3,618	245,064
1963 . . .	183,801	37,982	41,631	1,539	(c) 1,789	3,823	270,565
1964 . . .	199,171	39,883	50,167	1,745	(c) 1,949	4,372	297,288

(a) Years ended previous 31 December.
(d) Excludes loan receipts or expenditure.
years ended 30 June.

(b) Years ended 30 September. (c) Years ended 30 June.
(e) Municipalities—years ended 31 October; Road Districts—

Loan expenditure. The tables below show particulars for 1963-64 of loan expenditure on works connected with the ordinary services and the business undertakings of local government authorities.

**LOCAL GOVERNMENT AUTHORITIES: LOAN EXPENDITURE, STATES
1963-64**
(\$'000)

—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
Ordinary services—							
Roads, bridges, streets, footpaths, drainage and sewerage	10,455	7,768	25,066	4,277	1,774	1,880	51,220
Council properties	(a) 7,942	(a) 5,174	(a) 6,507	661	(a) 2,587	(a) 995	29,914
Parks, gardens, and recrea- tional reserves	2,004	1,873		426	1,051	694	
Other	(b) 2,324	1,129	852	20	273	721	5,319
Total, ordinary services .	22,725	15,944	32,426	5,383	5,685	4,289	86,453
Business undertakings—							
Water supply	5,513	227	7,355	..	..	1,415	14,510
Sewerage	3,814	..	..	..	4	1,665	5,484
Electricity and gas	21,876	3,165	4,158	94	509	..	29,802
Railways, tramways and omnibuses . . . . .	..	..	775	..	..	..	775
Abattoirs	2,938	119	..	..	..	62	3,119
Other . . . . .	..	2	146	..	..	..	148
Total, business undertakings	34,142	3,513	12,434	94	513	3,142	53,839
Grand total	56,867	19,457	44,860	5,478	6,199	7,431	140,291

(a) Includes plant. (b) Includes advances for homes, \$607,000.

For years to which particulars relate see following table.

The following table shows the loan expenditure on works connected with local government ordinary services and business undertakings during the years 1959-60 to 1963-64.

LOCAL GOVERNMENT AUTHORITIES: LOAN EXPENDITURE
STATES, 1960 TO 1964
(\$'000)

Year	N.S.W. (a)	Vic. (b)	Qld (c)	S.A. (c)	W.A.	Tas. (c)	Total
Ordinary services—							
1960	14,003	9,465	16,960	2,315	(d) 3,637	2,218	48,598
1961	15,189	10,359	22,815	3,579	(d) 4,542	2,553	59,038
1962	15,847	10,919	22,653	3,354	(c) 5,492	2,774	61,038
1963	19,856	12,478	25,974	4,977	(c) 6,836	3,862	73,982
1964	22,725	15,944	32,426	5,383	(c) 5,685	4,289	86,453
Business undertakings—							
1960	25,551	2,638	12,607	116	(d) 157	2,453	43,522
1961	30,299	2,736	15,148	82	(d) 275	2,707	51,248
1962	28,256	3,605	15,133	43	(c) 311	2,884	50,232
1963	36,988	3,665	10,927	114	(c) 596	3,350	55,640
1964	34,142	3,513	12,434	94	(c) 513	3,142	53,839

(a) Years ended previous 31 December. (b) Years ended 30 September. (c) Years ended 30 June.
(d) Municipalities—years ended 31 October; Road Districts—years ended 30 June.

Local government and semi-governmental authorities' debt

Statistics of local government and semi-governmental debt for 1959-60 to 1963-64 are given in the following paragraph. The information covers all local government authorities and those semi-governmental authorities responsible for the provision of the following services.

New South Wales. Water Supply, Sewerage and Drainage, Electricity and Gas Supply, Fire Brigades, Banking, and Grain Elevators. County Councils are included among these authorities.

Victoria. Water Supply and Sewerage, Irrigation and Drainage, Harbours, Tramways, Electricity and Gas Supply, Fire Brigades, Marketing (Buying and Selling), Industry Assistance, Grain Elevators, and Housing.

Queensland. Water Supply and Sewerage, Irrigation and Drainage, Harbours, Electricity Supply, Fire Brigades, University, Hospitals and Ambulances, Marketing (Buying and Selling and Agency), and Industry Assistance.

South Australia. Irrigation and Drainage, Tramways, Electricity Supply, Fire Brigades, Hospitals and Ambulances, Marketing (Agency), Industry Assistance, Banking, Housing, and Miscellaneous.

Western Australia. Water Supply and Sewerage, Harbours, Transport, Electricity Supply, Fire Brigades, Hospitals, Marketing (Agency), Housing, University of Western Australia, and Miscellaneous.

Tasmania. Harbours, Electricity, Supply, Fire Brigades, Transport, Housing, and Water Supply.

A detailed list of the authorities included is shown in *State, Territory and Local Government Authorities' Finance and Government Securities*, Bulletin No. 3, 1964-65.

The following table provides a summary of new money loan raisings, provisions for debt redemption, debt outstanding and interest payable by local government and semi-governmental authorities for the year 1963-64. For greater detail see *State, Territory and Local Government Authorities' Finance and Government Securities*.

**LOCAL GOVERNMENT AND SEMI-GOVERNMENTAL AUTHORITIES: NEW MONEY
LOAN RAISINGS, REDEMPTION, DEBT, AND INTEREST PAYABLE, STATES
1963-64
(\$'000)**

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
LOCAL GOVERNMENT AUTHORITIES							
New money loan raisings—							
From government	40	333	4,286	1,898	1	164	6,721
From public	36,357	23,651	29,567	4,738	7,053	5,660	107,026
<i>Total loan raisings</i>	<i>36,396</i>	<i>23,984</i>	<i>33,853</i>	<i>6,636</i>	<i>7,054</i>	<i>5,824</i>	<i>113,746</i>
Funds provided for redemption—							
Government loans	481	130	1,740	982	1	29	3,363
Loans due to public	13,833	8,793	12,040	1,193	2,982	1,528	40,369
<i>Total funds, redemptions . .</i>	<i>14,314</i>	<i>8,923</i>	<i>13,780</i>	<i>2,175</i>	<i>2,982</i>	<i>1,556</i>	<i>43,732</i>
Accumulated sinking fund balance	10,493	7,447	17,929	..	122	729	36,720
Debt—							
Due to government	3,517	7,060	33,754	4,738	18	980	50,067
Due to banks (net overdraft) . .	309	786	..	..	72	..	1,167
Due to public creditor(a) . .	215,937	134,534	256,864	22,784	39,936	37,764	707,819
<i>Total debt(a)</i>	<i>219,763</i>	<i>142,380</i>	<i>290,618</i>	<i>27,522</i>	<i>40,027</i>	<i>38,743</i>	<i>759,054</i>
Maturing overseas(a)(b) . .	2,500	..	5,400	..	..	..	7,900
Annual interest payable(a) . .	n.a.	7,459	15,031	1,333	2,137	2,053	n.a.

SEMI-GOVERNMENTAL AND OTHER PUBLIC AUTHORITIES

New money loan raisings—							
From government	32,317	41,955	14,363	29,163	11,617	17,311	146,726
From public	61,635	103,669	32,460	10,906	8,585	4,043	221,299
<i>Total loan raisings</i>	<i>93,953</i>	<i>145,624</i>	<i>46,823</i>	<i>40,069</i>	<i>20,202</i>	<i>21,354</i>	<i>368,025</i>
Funds provided for redemption—							
Government loans	6,539	5,379	1,096	3,023	1,608	2,138	19,782
Loans due to public	18,980	11,289	8,680	139	1,775	1,451	42,314
<i>Total funds, redemptions . .</i>	<i>25,518</i>	<i>16,668</i>	<i>9,776</i>	<i>3,162</i>	<i>3,383</i>	<i>3,589</i>	<i>62,097</i>
Accumulated sinking fund balance	91,991	35,629	16,437	1,759	5,293	2,477	153,587
Debt—							
Due to government	469,475	553,890	54,827	315,328	203,340	232,941	1,829,801
Due to banks (net overdraft) . .	1,511	943	..	20	355	..	2,829
Due to public creditor(a) . .	725,007	1,224,654	223,573	103,618	58,384	46,595	2,381,829
<i>Total debt(a)</i>	<i>1,195,992</i>	<i>1,779,487</i>	<i>278,400</i>	<i>418,965</i>	<i>262,078</i>	<i>279,536</i>	<i>4,214,458</i>
Maturing overseas(a)(b) . .	12,500	10,722	..	..	..	..	23,222
Annual interest payable(a) . .	n.a.	84,975	14,369	19,123	11,298	12,666	n.a.

(a) Includes debt or interest payable in London and New York. Debt in London is payable in £ sterling which have been converted at the I.M.F. rate of £Stg.1 to \$A2.50; New York debt is payable in U.S. dollars which have been converted at the I.M.F. rate of \$U.S.1.12 to \$A1. (b) Included in debt figures above.

In the table above and the following table debt includes all liabilities for which arrangements have been made for repayment over a period of one year or more, and net overdrafts. Interest capitalized and amounts due for the capital cost of assets or for services rendered which are to be repaid over a period of one year or more are included. Current liabilities, such as interest accrued (but not capitalized), trade creditors, amounts held in trust, and other debts which are to be repaid in less than one year are not included. Net overdraft is the gross overdraft of all funds less all bank credit balances (including fixed deposits) which do not form part of a sinking fund to repay a loan. New loans raised during the year include new loan liabilities incurred during the year, loans raised from the public to repay indebtedness to the Government, and interest capitalized. Loans raised and redeemed within the year, increases in overdrafts, and loans raised for conversion

or redemption of existing debt are excluded. Funds provided for redemption include instalments of principal repaid and amounts credited to sinking funds established for the purpose of repaying the debt on maturity. Amounts provided for redemption from loans raised for that purpose are excluded.

**LOCAL GOVERNMENT AND SEMI-GOVERNMENTAL AUTHORITIES: NEW MONEY
LOAN RAISINGS, REDEMPTION AND DEBT, AUSTRALIA, 1959-60 TO 1963-64**
(\$'000)

	1959-60	1960-61	1961-62	1962-63	1963-64
LOCAL GOVERNMENT AUTHORITIES					
New money loan raisings—					
From government	4,642	5,940	3,659	5,375	6,721
From public	68,739	71,459	91,148	103,934	107,026
<i>Total loan raisings</i>	<i>73,380</i>	<i>77,399</i>	<i>94,807</i>	<i>109,309</i>	<i>113,746</i>
Funds provided for redemption—					
Government loans	3,001	3,154	3,049	2,999	3,363
Loans due to public	26,450	28,322	30,724	36,564	40,369
<i>Total funds, redemptions</i>	<i>29,452</i>	<i>31,476</i>	<i>33,772</i>	<i>39,563</i>	<i>43,732</i>
Accumulated sinking fund balance	30,632	33,210	36,549	36,930	36,720
Debt—					
Due to government	38,054	40,983	44,014	46,673	50,067
Due to banks (net overdraft)	931	1,051	1,385	1,724	1,167
Due to public creditor(a)	472,358	516,484	579,630	640,910	707,819
<i>Total debt(a)</i>	<i>511,342</i>	<i>558,519</i>	<i>625,030</i>	<i>689,308</i>	<i>759,054</i>
Maturing overseas(a)(b)	11,924	11,001	10,643	8,257	7,900
SEMI-GOVERNMENTAL AND OTHER PUBLIC AUTHORITIES					
New money loan raisings—					
From government	115,148	124,293	126,106	131,127	146,726
From public	173,922	144,289	180,881	218,115	221,299
<i>Total loan raisings</i>	<i>289,070</i>	<i>268,582</i>	<i>306,987</i>	<i>349,242</i>	<i>368,025</i>
Funds provided for redemption—					
Government loans	15,232	16,839	17,670	18,102	19,782
Loans due to public	32,106	34,977	37,689	44,492	42,314
<i>Total funds, redemptions</i>	<i>47,338</i>	<i>51,816</i>	<i>55,359</i>	<i>62,594</i>	<i>62,097</i>
Accumulated sinking fund balance	98,894	115,115	127,048	139,117	153,587
Debt—					
Due to government	1,353,104	1,463,645	1,572,482	1,702,593	1,829,801
Due to banks (net overdraft)	8,830	12,186	11,688	7,333	2,829
Due to public creditor(a)	1,702,416	1,830,308	1,992,297	2,187,816	2,381,829
<i>Total debt(a)</i>	<i>3,064,350</i>	<i>3,306,139</i>	<i>3,576,467</i>	<i>3,897,743</i>	<i>4,214,458</i>
Maturing overseas(a)(b)	23,110	23,286	23,266	23,244	23,222

(a) See footnote (a) page 834.

(b) Included in debt figures above.

Roads and bridges

Commonwealth Government grants

The following table shows the allocation to the States under the several Commonwealth Aid Roads Acts for road construction, maintenance, repair and other works connected with transport for each of the years 1960-61 to 1964-65. After 1 July 1959, when the *Commonwealth Aid Roads Act* 1959 came into operation, the Commonwealth made separate provision for expenditure on strategic roads and the promotion of road safety practices. See also the chapter Public Finance, and Finance bulletins.

**ROAD CONSTRUCTION, MAINTENANCE, ETC.: GRANTS UNDER THE
COMMONWEALTH AID ROADS ACTS, STATES, 1960-61 TO 1964-65
(\$'000)**

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total
1960-61 . .	25,740	18,368	16,856	10,256	16,180	4,600	92,000
1961-62 . .	27,622	20,160	18,186	11,504	17,528	5,000	100,000
1962-63 . .	29,880	21,754	19,592	12,400	18,974	5,400	108,000
1963-64 . .	32,442	22,824	21,070	13,338	20,526	5,800	116,000
1964-65 . .	36,346	25,576	23,670	14,902	23,006	6,500	130,000

New South Wales

Main roads administration is organized as a separate department under the control of a Commissioner. The activities of the Department of Main Roads include works on main, developmental, secondary and tourist roads throughout the State, all roads in the unincorporated portion of the Western Division, and certain associated works, principally bridges and vehicular ferries, constructed and maintained from government funds. The Department of Main Roads co-operates with the municipal and shire councils in the work of constructing and maintaining the main roads system. Public roads may be proclaimed (*see* page 844) by the Governor as main roads on the recommendation of the Commissioner for Main Roads.

In the County of Cumberland, which for the purposes of the Main Roads Act is deemed to include the City of Blue Mountains and small sections of other councils' areas on the boundary of the County of Cumberland, the full cost of road and bridge construction is paid from the funds of the Department of Main Roads. The Councils contribute towards the cost at the rate of $\frac{1}{2}$ d. in the £ (equivalent to 0.2083 cents in the \$) on the unimproved value of ratable property or at a rate determined annually by the Commissioner of between ten per cent and fifteen per cent of Council's total rate income, whichever is the less. In the former case the rate payable in respect of lands used principally for primary production is one-half the rate levied on other lands. In country districts the Department meets the full cost of road and bridge works on State highways, the full cost of bridge construction works and three-quarters of the cost of road construction and road and bridge maintenance works on trunk roads, and three-quarters of the cost of bridge construction works and two-thirds of the cost of road construction and road and bridge maintenance works on ordinary main roads. The cost of constructing developmental roads and works is borne in full by the Department of Main Roads, but local Councils are required to maintain them in a satisfactory condition. The Department of Main Roads generally meets half the cost of works on secondary roads and on tourist roads.

Length of roads. The total length of proclaimed roads (*see* page 844) in New South Wales at 30 June 1965 was 25,650 miles classified as: State highways, 6,531 miles; trunk roads, 4,153 miles; ordinary main roads, 11,627 miles; secondary roads, 138 miles; developmental roads, 3,021 miles; and tourist roads, 180 miles. The length of main roads (highways, trunk and ordinary main roads) maintained by the Department of Main Roads at 30 June 1965 was 5,912 miles (26 per cent) while the length maintained by Councils was 16,399 miles (74 per cent). These figures exclude secondary, developmental and tourist roads, and unclassified roads in the Western Division of the State. In the area outside the County of Cumberland (the metropolis and adjoining areas) the proportions of main roads maintained by the Department and Councils respectively were: State highways, 74 per cent, 26 per cent; and trunk and ordinary main roads, 5 per cent, 95 per cent. Unclassified roads in the Western Division of the State, totalling 1,102 miles, were maintained by the Department, while developmental roads, totalling 3,021 miles, were maintained by Councils. In the County of Cumberland the proportions of main roads maintained by the Department and Councils respectively were: State highways, 98 per cent, 2 per cent; and ordinary main roads, 53 per cent, 47 per cent. Secondary roads totalling 138 miles were maintained by Councils. Of the 180 miles of tourist roads throughout the State, 157 miles (87 per cent) were maintained by Councils and 23 miles (13 per cent) by the Department. In 1963 the total length of all roads in New South Wales was estimated at 131,140 miles. The length of roads, according to their surface, were as follows: bitumen or concrete, 23,468 miles; gravel or stone, 45,513 miles; formed only, 28,660 miles; cleared only, 33,499 miles.

Department of Main Roads—operations. Progress has continued with the implementation of the Department's plan for main roads development in the County of Cumberland. Most of the Department's proposals have been incorporated in the County of Cumberland Planning Scheme approved by Parliament under the Local Government (Amendment) Act, 1951. The Department's proposals for the development of the main roads system in Newcastle and the surrounding

districts have been largely incorporated in the Northumberland County District Planning Scheme, and some sections of the system have been constructed. With some modifications, the Department's proposals for the planning of the main roads in the Wollongong-Port Kembla district have been incorporated in the planning scheme prepared by the Illawarra Planning Authority.

During 1964-65 seventy-six new bridges were constructed. In addition, sixty-eight concrete box culverts each having a waterway width of twenty feet or more were completed. Major bridge works under construction included eighteen steel and/or concrete bridges with an aggregate length of 12,441 feet.

Department of Main Roads—revenue and expenditure. The funds of the Department of Main Roads are derived principally from motor vehicle taxation, charges on heavy commercial goods vehicles under the Road Maintenance (Contribution) Act, 1958, grants under Commonwealth Aid Roads Act (see page 835 and the chapter Public Finance), other grants from the State or Commonwealth Governments, and proceeds of a levy on municipal and shire councils in the County of Cumberland in accordance with the Main Roads Act, 1924-1965. The State Government also makes repayable advances for Main Roads Department works, and since 1963 the Commissioner for Main Roads has had the power (with the approval of the Governor on the recommendation of the Treasurer) to borrow moneys.

DEPARTMENT OF MAIN ROADS, NEW SOUTH WALES
REVENUE AND EXPENDITURE, 1960-61 TO 1964-65
 (\$'000)

	1960-61	1961-62	1962-63	1963-64	1964-65
REVENUE(a)					
Motor vehicle taxation, registration and licence fees	24,865	25,366	30,327	38,682	41,059
Commonwealth Aid Roads Act	16,478	17,873	19,080	20,617	22,934
State and Commonwealth grants	750	1,408	475	197	70
Contributions by other departments and bodies	765	475	342	326	97
Local authorities' contributions— Under Section 11 of Main Roads Act	3,568	4,289	4,506	5,273	5,768
Other	149	250	229	490	91
Other	310	322	277	343	531
Total	46,886	49,983	55,234	65,929	70,549

EXPENDITURE(b)

Roads and bridges—					
Construction	35,463	37,874	38,000	48,199	56,153
Maintenance	12,275	12,686	12,661	16,209	16,514
Administration	1,825	2,257	2,632	2,820	3,425
Interest, exchange, etc., on debt	454	505	566	986	1,237
Other(c)	1,084	1,064	1,242	1,376	1,125
Total	51,102	54,387	55,100	69,589	78,454

(a) Excludes repayable advances by the State Government and private loans (\$1,150,000 in 1960-61, \$1,270,000 in 1961-62, \$1,780,000 in 1962-63, \$4,020,000 in 1963-64, and \$7,500,000 in 1964-65), and transfers from Sydney Harbour Bridge Account for Expressway construction (\$1,536,000 in 1960-61, \$3,644,000 in 1961-62, \$4,162,000 in 1962-63, \$3,078,000 in 1963-64, and \$2,360,000 in 1964-65). Expenditure from these amounts is fully reflected in Expenditure. (b) Excludes debt redemption (\$97,632 in 1960-61, \$106,150 in 1961-62, \$114,176 in 1962-63, \$123,992 in 1963-64, and \$137,280 in 1964-65) and repayment of government advances (\$800,000 in 1960-61, \$120,000 in 1962-63, \$120,000 in 1963-64, and \$1,020,000 in 1964-65). (c) Mainly purchase of assets not subject to annual depreciation charge. The purchase of other assets is omitted here because the depreciation charge for them is reflected each year in 'Roads and bridges'.

Figures shown on page 837 represent the aggregate revenue and expenditure of five funds—the County of Cumberland Main Roads General and Special Purposes Funds, the Country Main Roads General and Special Purposes Funds, and the Developmental Roads Fund.

Sydney Harbour Bridge. The Sydney Harbour Bridge was opened for traffic on 19 March 1932. The main span is 1,650 feet and clearance for shipping 170 feet from high water level. The deck, 160 feet wide, carries a roadway of eight traffic lanes and two railway tracks, and there is also a footway on each side. The capital cost of the bridge and associated roadways to 30 June 1965 was \$24,373,728, but this amount will be reduced slightly on completion of the disposal of the remaining surplus resumed property. The portion met from repayable loan funds, over \$21,000,000, is repayable from toll income. Income for 1964–65 amounted to \$4,166,000, including road tolls, \$3,796,000; railway passenger tolls, \$282,000; and omnibus passenger tolls, \$30,000. Expenditure amounted to \$2,264,000, including interest, exchange, flotation expenses, etc., \$854,160; sinking fund, \$307,840; maintenance, \$567,310. The accumulated surpluses of the Bridge Account have been used to finance conversion of tram tracks to roadway on, and the construction of expressway-type approaches to, the bridge. From 1957–58 to 1964–65 a total of \$2,233,332 was expended on tram track conversion and \$15,704,000 on the bridge expressway-type approaches. The account showed a deficiency of \$1,817,356 at 30 June 1965. During 1964–65, 37,242,852 road vehicles (excluding omnibuses and exempt vehicles), 25,817,813 rail travellers and 13,670,754 omnibus travellers crossed the bridge, contributing respectively 92 per cent, 7 per cent, and 1 per cent of the total toll revenue.

Victoria

With the object of improving the main roads of the State, the Country Roads Board was established by legislation passed in 1912. The principal duties of the Board are to determine which roads should be declared in the various classifications; to supervise the construction, reconstruction and maintenance of these roads; to inquire into the State's resources in road materials and the most effective methods of road construction and maintenance; and to recommend deviations in existing roads or the construction of new roads in order to facilitate communications or to improve the conditions of traffic.

Length of roads. The total length of roads declared (see page 844) by the Country Roads Board in Victoria at 30 June 1965 was 14,502 miles, classified as follows: State highways, 4,465 miles; main roads, 9,094 miles; by-pass roads, 37 miles; tourist roads, 445 miles; forest roads, 461 miles. The length of the surface sealed (bitumen or concrete) included in the foregoing mileage was 12,391 miles or 85 per cent of the total. It is estimated that, in addition to the 14,502 miles of classified roads, there were approximately 87,000 miles of unclassified roads at 30 June 1965. The latest detailed estimate of the total length of roads and streets in Victoria (as at 30 September 1964) provides the following information: bitumen or concrete, 25,022 miles; gravel or stone, 30,966 miles; formed only, 21,384 miles; cleared only, 23,024 miles; total, 100,396 miles.

Country Roads Board—operations. During 1964–65, 1,899 miles of declared roads under the Board's control were treated with bitumen. In addition, 1,033 miles of undeclared roads, for which the Board contributed funds, were similarly treated. The total length of bitumen treatment carried out in 1964–65 was 3,079 miles (including 147 miles for other authorities). Of the work on the roads under the Board's control in 1964–65, 645 miles related to State highways and by-pass roads. During 1964–65, 170 bridge projects of an estimated total value of \$4,728,000 were initiated. Of these, 116, estimated to cost \$1,768,400, were under municipal supervision.

Country Roads Board—receipts and payments. The funds of the Country Roads Board are derived principally from motor registration fees, two-thirds of additional registration fees (charged on initial registration or transfer), a proportion of drivers' licence fees, fines, payments by the Commonwealth Government under the Commonwealth Aid Roads Acts, road charges under the Commercial Goods Vehicles Act, and repayments by municipalities. As from 1 July 1964 proceeds from fines are paid to consolidated revenue, but an equivalent amount to replace them is made available to the Board from the loan fund. In addition, loans have been authorized from time to time under the Country Roads Acts for permanent works on main and developmental roads, State highways, tourists' roads, and forest roads, while the State Government has provided, free of repayment, loan moneys for restoration of flood and bush fire damage. During 1964–65 loan receipts and payments each amounted to \$762,000. The total loan expenditure to 30 June 1965 was \$32,946,596. This figure does not include loan expenditure from the Developmental Roads Loan Account, a fund which was created for the purpose of constructing and maintaining subsidiary or developmental roads. Loan money raised on this account was exhausted at 30 June 1937, the total expenditure at that date being \$12,851,516.

COUNTRY ROADS BOARD, VICTORIA: RECEIPTS AND PAYMENTS
1960-61 TO 1964-65
 (\$'000)

	1960-61	1961-62	1962-63	1963-64	1964-65
RECEIPTS					
Motor vehicle registration fees(a)	18,564	19,059	20,579	22,669	22,588
Drivers' licence fees(a)	513	520	637	595	603
Drivers' licence testing fees	78	154	149	162	187
Municipalities' payments	1,577	1,555	1,764	1,579	1,690
Commonwealth Aid Roads Acts(b)	17,968	19,755	21,351	22,431	25,182
Loans from State Government	566	1,366	602	666	762
Commonwealth-State contribution for restoration of flood damage	2	..	..	..	..
Road charges Commercial Goods Vehicles Act	4,509	4,525	4,919	5,638	5,926
Other	100	(c) 1,151	168	223	(d) 1,589
Total	43,878	48,086	50,169	53,964	58,527

PAYMENTS					
Construction and maintenance of roads and bridges—					
State highways	13,762	13,673	13,210	19,151	17,081
Main roads	11,839	14,853	13,496	14,889	15,189
By-pass roads	2,193	1,365	863	2,641	4,854
Tourist roads	1,200	1,146	939	1,425	1,422
Forest roads	551	590	553	742	714
Unclassified roads	8,456	10,386	9,668	10,107	11,131
Other	177	139	139	87	167
Plant purchase	1,416	349	1,832	1,193	697
Interest, debt redemption, etc.	1,776	1,855	1,931	1,950	1,988
Office building, Kew—capital cost	1,056	39	542	378	..
Statutory payment to Tourists' Resorts Fund	376	383	395	427	469
Administration and other	2,356	3,303	3,813	3,769	4,815
Total	45,159	48,082	47,378	56,758	58,525

(a) After deducting costs of collection. Prior to 1 January 1965 one half of the drivers' licence fees was credited to the funds of the Country Roads Board while the remaining half was credited to the Municipalities Assistance Fund. Since that date, of the total amount collected, one quarter is paid to the Country Roads Board, one quarter is paid to the Municipalities Assistance Fund, and one half is paid to Consolidated Revenue. (b) Excludes portion of Commonwealth Aid Roads Acts advances drawn by the Public Works Department for expenditure on wharfs, jetties, etc. (c) Includes \$1,000,000 Special Grant from Commonwealth Government. (d) Includes grant from Loan Fund, \$700,000, and temporary advance from Public Account, \$500,000.

Melbourne and Metropolitan Board of Works. Since assuming responsibility for carrying-out planning scheme proposals relating to metropolitan highways and bridges, a tentative construction programme of urgent highway works throughout the metropolitan area of Melbourne has been adopted. Expenditure on these projects up to 30 June 1965 was \$5,868,184.

Level crossings. In 1954-55 the Level Crossings Fund was created under the *Country Roads and Level Crossings Funds' Act* 1954 to finance (a) the elimination of level crossings or the provision of alternative routes to enable road traffic to avoid level crossings; (b) the provision of lights, signs, and lighting at, and the improvement of approaches to, level crossings; and (c) generally, the reduction of danger at level crossings. The Act provides for the payment into the Fund of one-third of all moneys received by way of additional motor registration fees and money provided under any other Act. The amount available for expenditure in 1964-65 was \$761,704, consisting entirely of receipts from owners' certificates. Expenditure from the Fund amounted to \$425,548, of which \$311,246 was incurred by the Railways Department and \$114,302 by the Country Roads Board, leaving a balance carried forward of \$733,972.

Queensland

The Department of Main Roads was constituted in February 1951, with the Commissioner of Main Roads as its permanent head. The duties of the Commissioner are to carry out surveys and investigations necessary to determine State highways, main, developmental, and secondary roads; and the responsibility for building and maintaining these declared roads is largely that of the Commissioner. Roads of purely local importance are constructed and maintained by local authorities. In many cases construction is financed by the State Government by means of Treasury loans. Other roads may be built by the Public Estate Improvement Branch of the Lands Department in order to open up areas of previously inaccessible or undeveloped country.

Length of roads. The total length of *declared roads* (see page 844) in Queensland at 30 June 1965 was 24,452 miles; comprising State highways, 6,323 miles; main roads, 5,199 miles; developmental roads, 4,373 miles; and secondary roads, 8,557 miles. By the amendments to the Main Roads Act published in the Government Gazette of 6 April 1959 mining access, farmers' and tourists roads became secondary roads, and the provisions relating to the declaration of tourist tracks were repealed. The *total length of roads and streets* in Queensland at 30 June 1965 was: bitumen or concrete, 14,039 miles; gravel or stone, 19,920 miles; formed only, 42,729 miles; cleared only, 43,624 miles; total, 120,312 miles.

Department of Main Roads—operations. During 1963–64 the Department completed 1,041 miles of roads, including new construction and stage construction. Bridges of all types to a length of 8,307 linear feet were constructed, bringing the total constructed by the Department at 30 June 1964 to 239,362 feet. In addition, at 30 June 1964, 8,859 feet were under construction.

Department of Main Roads—receipts and payments. The funds of the Department of Main Roads are obtained chiefly from motor vehicle registration and collections, fees, etc. under the Transport Acts, contributions under the Commonwealth Aid Roads Acts, and loans, grants and advances from the State Government. The total receipts and payments during each of the years 1959–60 to 1963–64 are shown below.

DEPARTMENT OF MAIN ROADS, QUEENSLAND: RECEIPTS AND PAYMENTS
1959–60 TO 1963–64
(\$'000)

	1959–60	1960–61	1961–62	1962–63	1963–64
RECEIPTS					
Motor vehicle registration, Transport Acts collections, fees, etc. . . .	10,809	11,138	11,627	12,339	13,664
Loans from State Government . . .	..	..	1,820	1,668	1,046
Grants, advances, refunds, etc. from State Government	652	716	1,818	2,305	2,818
Commonwealth Aid Roads and Works Acts	15,824	16,537	19,203	20,854	24,877
Maintenance repayments—local authorities	1,416	1,446	1,494	1,555	1,586
Hire, rent, sales of plant, etc. . . .	2,500	2,439	2,571	2,966	3,322
Other	1,203	1,047	1,217	1,275	2,126
Total	32,404	33,324	39,750	42,962	49,439
PAYMENTS					
Permanent road works and surveys(a) . .	22,762	21,653	26,371	28,847	34,345
Maintenance of roads	5,781	4,913	5,758	5,939	6,507
Plant, machinery, buildings, etc. (including plant maintenance) . . .	2,690	2,790	3,039	2,573	3,351
Loans—Interest	313	215	168	120	132
Redemption	659	637	644	650	666
Administration and other	2,541	3,043	3,575	4,063	4,828
Total	34,747	33,250	39,554	42,192	49,829

(a) Includes grants to local authorities for road purposes.

South Australia

The Highways and Local Government Department is administered by the Commissioner of Highways, who is empowered, subject to the approval of the Minister of Roads, to undertake the construction, maintenance and protection of the principal roads of the State, allocate grants to councils for roadworks and supervise the expenditure of these grants, and assist Councils to purchase road-making plant and to defray the cost of roadworks. In addition, the Commissioner advises Councils on technical questions concerning the construction, maintenance or repair of roads. Funds of the Department are derived mainly from the Highways Fund, into which are paid the proceeds from motor vehicle registration and drivers' licences (less cost of collection), appropriations from loan funds, repayments of advances made to Councils and contributions by the Municipal Tramways Trust, and from contributions under the Commonwealth Aid Roads Acts.

Length of roads. In South Australia there are only two classifications of roads. These are main roads proclaimed (*see* page 844) under the provisions of the Highways Act and all other roads, commonly designated district roads. At 30 June 1965 there were 8,156 miles of *proclaimed main roads* and approximately 79,794 miles of district roads, including roads and tracks outside local government areas, totalling 87,950 miles. *Total lengths of roads*, classified by surface, were estimated to be: bitumen or concrete, 7,973 miles; gravel or stone, 13,868 miles; formed only, 10,878 miles; unformed, 55,231 miles.

State Highways and Local Government Department receipts and payments. The following table shows particulars of receipts and payments, during the years 1960-61 to 1964-65, of funds controlled by the Highways and Local Government Department.

HIGHWAYS AND LOCAL GOVERNMENT DEPARTMENT, SOUTH AUSTRALIA
RECEIPTS AND PAYMENTS, 1960-61 TO 1964-65
(*\$'000*)

	1960-61	1961-62	1962-63	1963-64	1964-65
RECEIPTS					
Motor vehicles registration, licences, fees	8,223	8,586	9,074	9,978	12,075
Commonwealth Aid Roads Acts	10,256	11,505	12,400	13,337	14,903
Loans from State Government	180	400	580	950	..
Other(a)	899	1,068	1,166	1,210	1,359
Total	19,558	21,558	23,220	25,476	28,337
PAYMENTS					
Construction and reconstruction of roads and bridges(b)	12,932	14,616	15,358	19,517	18,339
Maintenance(a)(b)	4,191	4,674	4,976	5,583	5,277
Recoups to Consolidated Revenue Fund—interest, debt redemption and exchange	431	454	486	512	1,164
Advances to local and semi-governmental authorities	1,405	840	1,162	1,650	1,126
Stores, plant, machinery, suspense accounts, etc.(c)	990	814	—144	538	909
Total	19,949	21,398	21,837	27,801	26,815

(a) Includes reimbursement works for Commonwealth Government. (b) Includes administration expenses. (c) Represents gross repayments less recoveries by charges to works on account of depreciation and materials used.

Minus sign (—) denotes decrease.

Western Australia

Work connected with road construction and maintenance and associated projects in Western Australia is undertaken by the State Government, through the Main Roads Department, and by local government authorities throughout the State. The Department operates under the *Main Roads Act, 1930-1961*, and is administered by a Commissioner of Main Roads responsible

to the Minister for Works. The Act makes provision for public roads in the categories of main roads, controlled-access roads and developmental roads (*see* page 844). An additional category, that of important secondary roads, is used by the Department in determining its works programme. Within its own district each local government authority is responsible for the provision and upkeep of roads other than those provided by the Main Roads Department. In addition, the local authority is required by the Main Roads Act to maintain any developmental road situated in its district.

Length of roads. The total length of constructed roads for which financial provision was made by the Main Roads Department at 30 June 1965 was: main roads, 3,463 miles, including five miles of controlled-access roads; important secondary roads, 7,989 miles; and developmental roads, 42,004 miles. In addition, there were seventy-four miles gazetted as controlled-access roadway as yet not constructed. The total length of roads and streets in Western Australia at 30 June 1965 was made up as follows: bitumen or concrete, 12,056 miles; gravel or stone, 22,243 miles; formed only, 44,798 miles; natural state (cleared only), 28,012 miles; total, 107,109 miles.

Main Roads Department—operations. During the year 1964–65 the activities of the Department included clearing, 2,148 miles; forming, 3,485 miles; gravelling, 2,096 miles; reconditioning, 7,952 miles; and stabilizing, 82 miles. In addition, 1,762 miles were primed and sealed (including widening). New and replacement bridges constructed totalled forty-two, while eleven bridges were widened.

Main Roads Department—receipts and payments. The funds of the Main Roads Department are derived principally from allocations made under the *Commonwealth Aid Roads Act* 1964. In addition, financial assistance was given by the Commonwealth Government to the extent of \$1,500,000 in 1964–65 for the improvement of roads used for the transport of beef cattle in the Kimberley District. The five-year period relating to these additional grants terminates on 30 June 1966 with a total amount of \$6,900,000 of Commonwealth funds matched by a corresponding State contribution. Other sources of income include one-half of the net amount of traffic fees collected in the Metropolitan Traffic Area and an allocation of Department of Transport funds. (Outside the Metropolitan Traffic Area motor vehicle licence fees are collected and retained by the local authorities with the provision that from the 1 January 1965 they are required to contribute to the Central Road Trust Fund the amount of their annual vehicle licence collections which exceeds that of the base year 1958–59. Such amount is reimbursed together with an addition of 75 per cent from Commonwealth matching grants.) During 1964–65 general loan funds to the extent of \$800,000 were allocated for expenditure by the Department. Receipts and payments for the years 1960–61 to 1964–65 are shown in the following table.

MAIN ROADS DEPARTMENT, WESTERN AUSTRALIA
RECEIPTS AND PAYMENTS, 1960–61 TO 1964–65
(\$'000)

	1960–61	1961–62	1962–63	1963–64	1964–65
RECEIPTS					
Motor vehicle registration, licences, fees, etc.	974	974	974	974	974
Central Trust Fund(a)	1,415	2,121	2,799	3,747	4,672
Commonwealth Aid Roads Acts	14,858	15,506	16,257	16,987	21,945
Commonwealth Aid Roads Acts— matching grants(a)	1,407	2,103	2,811	3,539	1,062
Western Australia Grant (Beef Cattle Roads) Act . . . . .	..	1,000	1,400	1,500	1,500
Commonwealth-State Grant for res- toration of flood-damaged roads . . . . .	..	640	..	..	..
Recoups from other authorities	434	494	740	1,124	1,455
Other	6	11	14	71	52
Total	19,094	22,849	(b)24,995	(c)27,941	31,660

For footnotes *see* next page.

MAIN ROADS DEPARTMENT, WESTERN AUSTRALIA: RECEIPTS AND
PAYMENTS, 1960-61 TO 1964-65—*continued*
(\$'000)

	1960-61	1961-62	1962-63	1963-64	1964-65
PAYMENTS					
Construction and reconstruction of roads and bridges(d)	10,894	12,940	14,534	13,872	18,110
Maintenance of roads and bridges(d)	1,948	2,172	2,015	2,561	2,196
Grants to local authorities, etc.	2,527	2,873	2,546	2,940	2,939
Payments to local authorities from Central Road Trust Fund and Commonwealth matching grants	808	1,450	1,892	2,518	6,286
Transfer to State Consolidated Revenue	140	140	140	140	195
Plant, machinery, etc.	738	480	971	1,146	1,587
Other(d)	488	775	876	1,405	1,530
Total	17,543	20,830	22,973	(e) 24,582	(f) 32,843

(a) For 1960-61 to 1963-64 includes amounts to be distributed to metropolitan and country local authorities early in the following year. (b) Excludes \$1,400,000 advance from State Treasury. (c) Excludes \$1,000,000 advance from State Treasury. (d) Includes administration and expenditure on hire and maintenance of road construction plant, etc., and on purchase of materials. (e) Excludes \$1,400,000 refund of advance from State Treasury. (f) Excludes \$1,000,000 refund of advance from State Treasury.

Tasmania

Under the *Road Construction (Transfer of Functions) Act 1951*, which came into operation on 1 July 1951 the control of the construction and maintenance of roads and certain road making plant was vested in the Minister for Lands and Works. Works authorized by the Minister in respect of roads classified as State highways, tourist, and developmental roads are constructed by the Department of Public Works and financed from the State Highways Trust Fund, into which are paid the proceeds from Commonwealth Aid Roads grants, motor vehicle registration fees and taxes, licence fees for drivers and public transport, and other moneys made available by Parliament. In addition, provision was made under the Road Construction (Transfer of Functions) Act for certain works authorized by the Transport Commission to be carried out and constructed by the Department. The expenditure by the Public Works Department during 1964-65 on the construction and maintenance of roads, tracks and bridges amounted to \$13,155,580, of which \$9,019,766 was charged to road funds, \$48,466 to revenue, \$3,996,450 to loan, and \$90,898 to other funds. Except in special cases, municipal councils bear the cost of maintaining country roads and a proportion of the cost of main and secondary roads.

Length of roads. The length of *classified roads* (see page 844) at 30 June 1965 was 2,244 miles, comprising State highways, 1,171 miles; main roads, 662 miles; secondary roads, 196 miles; tourist roads, 46 miles; and other roads, 169 miles. The mileages of sealed (bitumen or concrete) roads and their proportions to the respective totals were: State highways, 873 miles (75 per cent); main roads, 436 miles (66 per cent); secondary, tourist and other roads, 126 miles (31 per cent). The total length of classified sealed roads was 1,435 miles (64 per cent). The total length of local authorities roads at 30 June 1965 was 8,622 miles, comprising bitumen or concrete, 1,184 miles (14 per cent); gravel or stone, 6,124 miles (71 per cent); formed only or cleared only, 1,314 miles (15 per cent). Roads of other authorities (Hydro-Electric Commission, Forestry Commission and Closer Settlement Board) totalled 1,672 miles.

The *total length of all roads* in Tasmania at 30 June 1965 was 12,538 miles, comprising bitumen or concrete, 2,666 miles (21 per cent); gravel or stone, 8,552 miles (68 per cent); formed only or cleared only, 1,320 miles (11 per cent).

Combined road funds—receipts and payments. The table following shows particulars of the receipts and payments of the combined Road Funds for the years 1960-61 to 1964-65.

ROAD FUNDS, TASMANIA: RECEIPTS AND PAYMENTS, 1960-61 TO 1964-65
(\\$'000)

	1960-61	1961-62	1962-63	1963-64	1964-65
RECEIPTS					
Motor vehicle taxation and registration, licences, fees, fines, etc.	2,326	2,509	2,833	3,019	3,153
Commonwealth Aid Roads and Works Acts	4,600	5,000	5,400	5,800	6,500
Recoups from local authorities, etc.	17	17	19	14	16
State Loan Fund	4,923	4,125	3,854	4,761	3,468
Hire of plant and workshop charges	2,786	2,905	2,949	3,165	3,329
Other	754	(a) 992	(a) 682	(a) 465	(a) 1,295
Total	15,405	15,547	15,737	17,224	17,761
PAYMENTS					
Construction and reconstruction of roads and bridges	9,130	9,182	9,801	11,239	11,420
Maintenance of roads and bridges	2,614	2,518	2,567	2,586	2,552
Other works connected with transport	72	38	46	72	76
Grants to local authorities	29	(b) 235	(b) 50	33	15
Purchase, maintenance and operation of plant	3,058	2,919	3,070	3,231	3,402
Other	730	172	147	220	383
Total	15,633	15,064	15,682	17,382	17,848

(a) Includes Commonwealth Employment Stimulation Grant (\$733,912 in 1961-62, \$507,554 in 1962-63, \$15,302 in 1963-64 and \$14,946 in 1964-65). (b) Includes grants under Commonwealth Employment Stimulation Grant (\$206,912 in 1961-62, and \$22,260 in 1962-63).

Summary of roads used for general traffic

Proclaimed or declared roads. The table hereunder is a summary of the roads proclaimed or declared under the Acts of the several States relative to the operations of the central road authorities, and shows the lengths of various classes proclaimed or declared as at 30 June 1965. The central road authority in each State assumes responsibility under the Act for the whole, or a proportion, of the cost of construction and/or maintenance of these roads, the extent varying from State to State and with the class and locality of the roads. Before proclamation of a main road, consideration is given, in general, to the following points: availability of funds; whether the road is, or will be, within one of several classes of main trunk routes; the value of the roads as connecting links between centres of population or business; whether the district is, or will be, sufficiently served by railways. Provision is also made in some States for the declaration of roads other than main roads. The absence of a particular class in any State does not necessarily imply that there are no roads within that State that might be so classified; the classes are restricted only to roads proclaimed or declared under the Acts. A further point to make is that, through various causes, e.g. insufficiency of funds, man-power or materials, etc. construction or maintenance may not keep pace with gazettals of mileages, and, therefore, the condition of a road may not match its status.

PROCLAIMED OR DECLARED ROADS: LENGTHS
STATES, 30 JUNE 1965
(Miles)

Class of road	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Total				
State highways	6,531	4,465	6,323	8,156	3,463	1,171	60,844				
Trunk roads	4,153	9,094	5,199								
Ordinary main roads	11,627										
<i>Total main roads</i>	<i>22,311</i>	<i>13,559</i>	<i>11,522</i>	<i>8,156</i>	<i>3,463</i>	<i>1,833</i>	<i>60,844</i>				
Secondary roads	(a) 138	..	(b) 8,557	..	7,989	196	16,880				
Developmental roads	3,021	..	4,373	..	(c) 42,004	..	49,398				
Tourist roads	180	445	..	..	..	46	671	
Other roads . . . . .	..	(d) 498	..	..	(e) 74	(f) 169	741	
<i>Total other roads</i>	<i>3,339</i>	<i>943</i>	<i>12,930</i>	<i>..</i>	<i>50,067</i>	<i>411</i>	<i>67,690</i>				
Grand total	25,650	14,502	24,452	8,156	53,530	2,244	128,534				

(a) Metropolitan only. (b) Includes mining access roads, farmers' roads and tourist tracks.
(c) Maintenance of these roads is the responsibility of the several local authorities. (d) Forest roads and by-pass roads. (e) Gazetted as controlled access roadway but not constructed. (f) Subsidized roads.

Total roads. The following table represents an attempt to classify all the roads used for general traffic in Australia, at the latest dates available, according to States and Territories and to certain broad surface groups. The figures in the table for the States are obtained from the Deputy Commonwealth Statistician in each State, and are derived mainly from local government sources.

ALL ROADS USED FOR GENERAL TRAFFIC: LENGTHS
STATES AND TERRITORIES, 30 JUNE 1965
(Miles)

Surface of roads	N.S.W. (a)	Vic. (b)	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Total
Bitumen or concrete	23,468	25,022	14,039	7,973	12,056	2,666	1,459	415	87,098
Gravel, crushed stone or other improved surface	45,513	30,966	19,920	13,868	22,243	8,552	1,012	185	142,259
Formed only	28,660	21,384	42,729	10,878	44,798	1,320	1,613	90	342,132
Cleared only	33,499	23,024	43,624	55,231	28,012		7,270	..	
Total	131,140	100,396	120,312	87,950	107,109	12,538	11,354	690	571,489

(a) 30 June 1963. (b) 30 September 1964.

Aggregate net expenditure on roads and bridges in Australia

In most States there are three classes of authorities concerned with roads and bridges, the State Government, the central road authority and numerous local government bodies. The Commonwealth Government, in addition to the grants it makes to the States for road purposes, is concerned with roads in the Northern Territory and the Australian Capital Territory and roads of access to Commonwealth property in the various States. Some information relating to Commonwealth grants to the States for road purposes and particulars of the expenditure on roads and bridges by local government bodies and the central road authorities are given in preceding sections of this chapter.

Most of these authorities may expend money directly on road construction or indirectly by means of grants and payments to other authorities. These indirect payments, if included in an aggregate, would duplicate expenditure; this, together with the fact that some authorities are unable to supply separate information concerning their road expenditure, makes it difficult to compile precise statistics of aggregate expenditure on roads and bridges.

The information in the following table, which is partly estimated and which excludes the main indirect payments, provides an approximate measure of the aggregate net expenditure by the three classes of authorities mentioned above on roads and bridges in Australia during each of the years ended 30 June 1961 to 1965. Expenditure on roads by those authorities whose primary activity is directed towards functions other than roads, e.g. electricity, forestry, housing, etc. authorities, is not included. The figures cover expenditure on the construction, reconstruction and maintenance of roads and bridges, and direct administration but not debt charges. Because of the difficulties associated with the indirect payments mentioned above, it is not possible to give separate net details for each authority.

**PUBLIC AUTHORITY NET EXPENDITURE ON ROADS AND BRIDGES
STATES AND TERRITORIES, 1960-61 TO 1964-65**
(\$ million)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T. and A.C.T.	Aust.
1960-61 . . .	100	73	48	27	20	16	5	289
1961-62 . . .	104	78	49	29	23	16	8	307
1962-63 . . .	108	77	55	30	26	17	10	324
1963-64 . . .	127	89	65	35	27	18	9	370
1964-65 . . .	143	94	71	37	34	17	9	405

Water supply, sewerage and drainage

The information in this section relates primarily to the metropolitan areas and provincial cities and towns. For information on water supply and irrigation in rural areas see the chapter Water Conservation and Irrigation.

New South Wales

The two largest domestic water supply and sewerage systems are controlled by statutory boards, each consisting of a president and a vice-president appointed by the State Government, and five members elected by local councils. These are (a) the Metropolitan Water, Sewerage and Drainage Board, which administers the systems in the County of Cumberland, i.e. in Sydney and in the surrounding districts, and, in addition, has jurisdiction over territory extending along the South Coast beyond Wollongong to Lake Illawarra, Shellharbour and Kiama, and (b) the Hunter District Water Board serving the Newcastle-Maitland-Cessnock areas. At Broken Hill and Cobar similar boards include representatives of the mining companies. Other systems, apart from irrigation projects and water storage systems administered by the State Government, are controlled by county, municipal or shire councils.

Metropolitan and Hunter District water supply (to 30 June 1965). The storage reservoirs of the metropolitan system with a combined available capacity of 577,112 million gallons, drain catchment areas of 3,860 square miles (Warragamba, 3,480 square miles, Upper Nepean, 347 square miles, and Woronora, 33 square miles). The development of a water supply system on the Warragamba River was completed with the official opening of the Warragamba Dam in October 1960. This dam, constructed in concrete, has a storage capacity of 452,505 million gallons. Its safe net draught is estimated to be 285 million gallons a day. A hydro-electric power station at the dam generated 341 million kWh in 1963-64, and, because of dry conditions, only 146 million kWh in 1964-65. At 30 June 1965 there were 167 service reservoirs in use with a combined capacity of 657 million gallons. Rating for water for 1964-65 was 9d. in the £ (equivalent to 3.75 cents in the \$) of assessed annual value. For water in excess of the gallonage provided for in the rate (calculated at 30 cents per 1,000 gallons) the charge was 28 cents per 1,000 gallons.

The water supply of the *Hunter District system* is drawn principally from three sources: the Chichester Reservoir, with a storage capacity of about 5,000 million gallons and draining a catchment of seventy-six square miles, the Tomago Sandbeds, which extend northerly along the coast towards Port Stephens, and the Grahamstown Water Supply Scheme which is still being developed. Another source of supply, the Nelson Bay-Anna Bay Scheme, is also being developed. Service reservoirs and tanks distributed throughout the Water Supply District have a total storage capacity of 120 million gallons. Water rating for 1964-65 was 1s. 5½d. in the £ (equivalent to 7 2917 cents in the \$) on assessed annual value for occupied properties and 1s. 2½d. in the £ (equivalent to 6 0417 cents in the \$) for unoccupied properties. The price of water to domestic and industrial consumers is 28 cents per 1,000 gallons.

The following tables show, for the Metropolitan and Hunter District systems, the number of properties, the estimated population supplied, and other details.

**METROPOLITAN WATER SUPPLY(a), NEW SOUTH WALES
SERVICES, 1960-61 TO 1964-65**

Year	Improved properties for which water mains available	Estimated population supplied	Average daily consumption	Total consumption for the year	Average daily consumption		Length of mains	Number of meters
					Per property	Per head of estimated population		
		'000	mill. gals.	mill. gals.	gallons	gallons	miles	
1960-61	620,944	2,341	219	79,988	353	94	6,664	411,731
1961-62	634,139	2,481	221	80,556	348	89	6,945	430,588
1962-63	653,674	2,544	234	85,282	357	92	7,173	438,585
1963-64	669,948	2,600	255	93,211	381	98	7,397	457,215
1964-65	693,185	2,660	290	105,892	418	109	7,649	479,321

(a) County of Cumberland, City of Greater Wollongong and Shellharbour and Kiama Municipalities.

**HUNTER DISTRICT WATER SUPPLY(a): SERVICES
1960-61 TO 1964-65**

Year	Properties supplied	Estimated population supplied	Average daily consumption	Total consumption for year	Average daily consumption		Length of mains
					Per property	Per head of estimated population	
			mill. gals.	mill. gals.	gallons	gallons	miles
1960-61	86,032	290,530	29.7	10,854	346	102	1,483
1961-62	87,792	296,502	31.7	11,555	361	107	1,512
1962-63	89,283	301,580	36.6	13,352	410	121	1,551
1963-64	91,616	309,609	36.4	13,336	398	118	1,590
1964-65	93,646	316,625	41.5	15,139	443	131	1,623

(a) Newcastle, Maitland and Cessnock areas.

Metropolitan and Hunter District sewerage and drainage system (to 30 June 1965). The metropolitan system serving Sydney and suburbs comprises three major sewerage systems and seven minor systems, consisting of six outfalls discharging directly into the Pacific Ocean and four treatment works. In addition, seven centres outside the metropolitan area (Camden, Campbelltown, St. Mary's, Port Kembla, Richmond, Warragamba township, and Wollongong) are served by local treatment works. Stormwater drainage channels under the control of the Metropolitan Water, Sewerage and Drainage Board at 30 June 1965 were 179 miles long. Sewerage rating for 1964-65 was 9½d. in the £ (equivalent to 3.9583 cents in the \$) of assessed annual value, and drainage rating 1½d. in the £ (equivalent to 0.5208 cents in the \$).

The main sewerage system of the *Hunter District* serves the City of Newcastle and discharges into the Pacific Ocean at Merewether Gulf. There are also local treatment works at Maitland, Cessnock and some of the outlying districts. Sewerage rates for 1964-65 were 1s. 0½d. in the £ (equivalent to 5.2083 cents in the \$) of assessed annual value of occupied lands and 9½d. in the £ (equivalent to 3.9583 cents in the \$) for unoccupied lands, and drainage rates (on certain areas served) 1½d. in the £ (equivalent to 0.625 cents in the \$).

The following table gives details of sewerage services and stormwater drains of the Metropolitan system.

METROPOLITAN SEWERAGE AND DRAINAGE^(a)
NEW SOUTH WALES: SERVICES, 1961 TO 1965

30 June—	Improved properties for which sewerage available	Estimated population served	Lengths of sewers	Length of stormwater channels
		'000	miles	miles
1961 . .	412,034	1,620	4,231	180
1962 . .	426,333	1,710	4,489	178
1963 . .	451,997	1,780	4,763	179
1964 . .	475,735	1,870	5,074	180
1965 . .	501,389	1,930	5,328	179

(a) County of Cumberland, City of Greater Wollongong, Shellharbour and Kiama Municipalities.

At 30 June 1965, 68,764 premises had been connected to the Hunter District Water Board's sewerage system (Newcastle-Maitland-Cessnock areas). The total length of sewers under the Board's control was 976 miles, and the length of drains was 51 miles.

Metropolitan and Hunter District systems' finances. The following table shows the debt, revenue and expenditure of the Metropolitan Water, Sewerage and Drainage Board and the Hunter District Water Board for each of the services of water supply, sewerage and drainage during 1964-65, and for the three services combined for the years 1960-61 to 1964-65.

**METROPOLITAN AND HUNTER DISTRICT WATER SUPPLY, SEWERAGE
AND DRAINAGE, NEW SOUTH WALES: FINANCES, 1960-61 TO 1964-65**
(\$'000)

Year	Capital debt at 30 June	Revenue	Expenditure				Surplus (+) or deficit (-)
			Working expenses (a)	Interest and exchange	Debt redemption	Total	

METROPOLITAN^(b)

1964-65—							
Water . . .	270,724	32,485	15,151	12,525	4,801	32,477	+8
Sewerage . . .	166,054	21,207	10,766	7,436	3,001	21,203	+4
Drainage . . .	4,162	1,198	930	205	58	1,193	+5
Total, 1964-65 . .	440,941	54,890	26,846	20,166	7,861	54,873	+17
1963-64 . . .	407,205	50,860	25,133	18,549	7,145	50,827	+33
1962-63 . . .	375,776	44,191	20,970	16,838	6,355	44,162	+29
1961-62 . . .	340,372	39,651	18,700	14,892	6,027	39,619	+32
1960-61 . . .	310,244	34,495	16,188	13,146	5,137	34,471	+24

HUNTER DISTRICT^(c)

1964-65—							
Water . . .	52,233	4,386	1,985	2,050	465	4,500	-115
Sewerage . . .	16,794	1,991	1,032	720	229	1,982	+9
Drainage . . .	751	132	82	37	6	125	+7
Total, 1964-65 . .	69,778	6,508	3,099	2,808	701	6,607	-99
1963-64 . . .	65,254	6,205	2,890	2,653	648	6,191	+14
1962-63 . . .	59,931	5,813	2,640	2,431	722	5,794	+19
1961-62 . . .	55,408	5,466	2,791	2,101	529	5,421	+45
1960-61 . . .	50,674	4,758	2,532	1,733	473	4,738	+20

(a) Includes provision for renewals, long service leave, etc. (b) County of Cumberland, City of Greater Wollongong, Shellharbour and Kiama Municipalities. (c) Newcastle-Maitland-Cessnock areas.

Local government country water supply and sewerage systems. At 31 December 1963 country water supply services were conducted or under construction by 50 municipalities, 86 shires and 5 county councils, and country sewerage services by 52 municipalities and 37 shires. The capital indebtedness of these schemes was \$75,735,674 at 31 December 1963, namely \$52,969,754 for water and \$22,765,920 for sewerage. Debt of the municipalities amounted to \$38,016,026, shires to \$27,515,930 and county councils to \$10,203,718. Government advances amounting to \$864,646 are included in these figures. Aggregate income and expenditure amounted to \$12,654,822 and \$9,970,736, respectively, in 1963.

Other country water supply and sewerage systems. The water supply and sewerage services for Broken Hill are operated by a statutory board, the Broken Hill Water Board. Its capital indebtedness at 31 December 1964 was \$7,135,396. In 1964 income (excluding subsidies, State Government, \$160,218 and mining companies, \$458,418) amounted to \$631,320 and expenditure (excluding debt redemption, \$330,494) amounted to \$909,082. The Cobar Water Board was constituted in February 1964. At 31 December 1964 its capital indebtedness was \$1,644,916. The following country water supply systems—South-West Tablelands, Junee and Fish River—are administered by the Department of Public Works. These supply water in bulk to municipalities and shires, the Railways Department and other large consumers. Only a small quantity is sold direct to private consumers. The capital indebtedness of these systems was \$14,977,908 at 31 December 1964. The Mulwala Water Supply and Sewerage Service was constructed as an urgent war-time work for the Commonwealth, and the Bethungra Water Supply System is administered by the Department of Public Works in conjunction with the Junee supply.

Victoria

Melbourne and Metropolitan Board of Works. The Board consists of a Chairman and fifty-one Commissioners elected to represent the municipalities which lie wholly or partly within the metropolitan area. The principal functions of the Board are: to control and manage the metropolitan water supply system; to provide the metropolitan area with an efficient main and general sewerage system; to deal with main drains and main drainage works; to control and manage the rivers, creeks and watercourses within the metropolitan area; and to carry out the functions of a permanent planning authority.

Metropolitan water supply. There are six storage reservoirs serving the metropolitan area—Yan Yean, 7,233 million gallons (available for consumption, 6,649 million gallons); Toorourrong, 60 million gallons; Maroondah, 6,289 million gallons (4,870 million gallons); O'Shannassy, 930 million gallons; Silvan, 8,853 million gallons (8,823 million gallons); and Upper Yarra, 45,400 million gallons (44,120 million gallons); total 68,765 million gallons (65,452 million gallons). Service reservoirs number thirty-seven, with a total capacity of 366 million gallons. The water rate levied by the Board in 1964-65 was 8d. in the £ (equivalent to 3.333 cents in the \$) on the net annual value of the properties served. The charge for water consumed in excess of the quantity which, at 20 cents per 1,000 gallons, would equal the assessed water rates on each property, was 20 cents per 1,000 gallons. The following table shows particulars of Melbourne metropolitan water supply services for the years 1960-61 to 1964-65.

MELBOURNE WATER SUPPLY: SERVICES, 1960-61 TO 1964-65

Year	Number of houses supplied	Estimated population supplied	Average daily consumption	Total consumption for the year	Average daily consumption		Length of aqueducts, etc., mains and reticulation	Number of meters
					Per house	Per head of estimated population		
		'000	mill. gals.	mill. gals.	gallons	gallons	miles	
1960-61	510,078	1,836	152.9	55,822	300	83.3	5,245	392,396
1961-62	519,216	1,869	157.6	57,521	304	84.3	5,477	422,318
1962-63	547,123	1,981	151.3	55,225	277	76.4	5,622	460,866
1963-64	572,431	2,072	162.9	59,621	285	78.6	5,882	485,856
1964-65	595,727	2,157	168.2	61,409	282	78.0	6,098	511,077

Metropolitan sewerage and drainage. Particulars of sewerage and drainage services for 1960-61 to 1964-65 are shown on the next page. The rate levied in 1964-65 for sewerage was 1s. 2d. in the £ (equivalent to 5.8333 cents in the \$) on the net annual value of the property served. The drainage rate was 2d. in the £ (equivalent to 0.8333 cents in the \$).

MELBOURNE SEWERAGE AND DRAINAGE: SERVICES
1960-61 TO 1964-65

Year	Number of houses for which sewers are provided	Estimated population for which sewers are provided	Average daily pumping	Total sewerage pumped for the year	Average daily pumping		Length of sewers, etc.	Length of main drains
					Per house	Per head of estimated population		
1960-61	395,109	'000	mill. gals.	mill. gals.	gallons	gallons	miles	miles
1961-62	399,890	1,331	88.1	32,159	223.0	66.2	3,550	193
1962-63	422,899	1,361	83.0	30,308	207.6	61.0	3,665	198
1963-64	441,291	1,402	84.9	30,997	200.8	60.6	3,769	205
1964-65	453,078	1,446	89.7	32,833	202.4	62.0	3,932	211
		1,491	93.6	34,152	206.5	62.8	4,113	218

The metropolitan sewerage system consists of the main system (serving an area of 96,159 acres) and five subsidiary systems—the Sunshine system (serving an area of 2,727 acres), the Laverton system (serving an area of 172 acres), the Kew system (serving an area of 112 acres), the South-eastern system (serving an area of 3,909 acres in Cheltenham, Parkdale, Mentone, and Mordialloc), Watsonia system (serving an area of 188 acres), and the Maribyrnong system (serving an area of 182 acres). The Metropolitan Sewerage Farm, 26,809 acres in extent and situated about twenty-four miles south-west of Melbourne beyond the township of Werribee, serves to purify and dispose of approximately ninety-eight per cent of the sewerage flow of the metropolis before its discharge into Port Philip Bay. The total capital cost (less depreciation) of the farm to 30 June 1965 was \$9,507,128. Revenue during 1964-65 amounted to \$478,406, cost of sewerage disposal to \$557,820, trading expenses to \$285,588, interest to \$505,168, and net cost of sewerage purification to \$870,170. These financial particulars are included in the sewerage items of the summary below.

Melbourne and Metropolitan Board of Works finances. The following table provides for the year 1964-65 a summary of the financial operations of the water supply, sewerage and drainage services conducted by the Melbourne and Metropolitan Board of Works, and of the combined services for the years 1960-61 to 1964-65.

MELBOURNE AND METROPOLITAN BOARD OF WORKS: FINANCES
1960-61 TO 1964-65
(\$'000)

Service, etc.	Capital cost of works and buildings at 30 June(a)	Revenue	Expenditure				Surplus (+) or deficit (-)
			Working expenses	Interest and exchange	Debt redemption	Total	
Water	138,708	12,160	3,924	7,180	..	11,104	+ 1,056
Sewerage	140,023	11,404	3,509	6,793	..	10,302	+ 1,102
Drainage	24,983	1,744	388	884	..	1,272	+ 471
General(b)	11,259	..	1,486	..	1,960	3,446	- 3,446
Total, 1964-65	314,972	25,307	9,308	14,856	1,960	26,124	- 817
1963-64	286,566	24,373	9,315	13,342	1,693	24,350	+ 23
1962-63	258,428	23,429	10,068	11,840	1,494	23,403	+ 26
1961-62	235,014	21,400	9,644	10,553	1,189	21,386	+ 14
1960-61	213,336	18,315	8,043	9,450	1,061	18,554	- 239

(a) Total loan indebtedness—1964-65, \$295,886,410. (b) Statutory and general expenditure not distributed over services.

State Rivers and Water Supply Commission. Water supply and conservation throughout Victoria (except for the area controlled by the Melbourne and Metropolitan Board of Works) is under the jurisdiction of the State Rivers and Water Supply Commission. The events leading to the establishment of the Commission, and its works in the spheres of irrigation, domestic and stock water supply to farms, drainage, flood protection and river improvements, have already been described in the chapter Water Conservation and Irrigation. This section is therefore confined to the Commission's functions in connection with urban water supply and sewerage.

Extra metropolitan water supply. At 30 June 1965 the Commission provided a reticulated water supply from its own works to 137 cities and towns having a combined population of 199,000 persons. The principal systems operated by the Commission serve part of the Mornington Peninsula—Dandenong area (about 77,000 people supplied); Bendigo, Castlemaine, etc. (57,000); and about 8,000 people in the Western District. In addition, 13,000 persons in a number of towns in the Bellarine Peninsula receive supply through a Commission-operated distributory system from headworks controlled by the Geelong Waterworks and Sewerage Trust. The Bendigo-Castlemaine supply also provides for the irrigation of 11,000 acres as well as urban requirements in the area. Outside these areas the Commission supplies mainly small towns in the north of the State in areas where it also supplies farms with water for irrigation or domestic and stock purposes. Capital expenditure by the Commission on urban water supply at 30 June 1965 was divided between the several systems as follows: Mornington Peninsula, \$21,400,000; Bendigo-Castlemaine, \$9,300,000; Bellarine Peninsula, \$2,350,000; Otway System (Western District), \$2,350,000; other, \$2,350,000; total, \$37,750,000. This expenditure is net of redemption payments. In addition to the towns supplied by the Commission there are approximately 604,000 people in 224 cities and towns throughout the State who get a reticulated water supply from works operated by local authorities.

All these authorities operate under the supervision of the State Rivers and Water Supply Commission, largely because the Government subsidizes their capital expenditure. Most new works are financed from Government loan funds, but the Geelong Trust and in recent years some other local authorities borrowed money privately. In most cases the local authority controls both headworks and distribution system, but several towns—serving in all about 50,000 people—draw their water from the State Rivers and Water Supply Commission and are concerned only with reticulation of the water. Together, therefore, the Commission and local authorities supply 361 urban centres containing more than 803,000 people. Very few towns of any importance are now without reticulated water supply. The following table presents the financial position in respect of town water supply at 30 June 1965.

TOWN WATER SUPPLY, VICTORIA: CAPITAL LIABILITY, 30 JUNE 1965
(\$'000)

	Water supply provided by—		
	Local authorities	State Rivers and Water Supply Commission	Total
Government advances	53,500	38,200	91,700
Less redemption	3,850	450	4,300
Government advances outstanding . .	49,650	37,750	87,400
Borne by State	9,150	17,250	26,400
Borne locally	40,500	20,500	61,000

In addition, nearly \$18,000,000 has been borrowed locally, mainly by the Geelong Waterworks and Sewerage Trust.

The proportion of loan capital borne by the State is much higher in the case of Commission undertakings than for towns supplied by local authorities. This is because most Commission undertakings have been developmental in nature. Besides meeting interest on capital borne by it, the State pays the difference between three per cent and the actual rate paid on practically all the capital carried locally. The total annual subsidy on country town water supply is currently about \$2,500,000.

Extra metropolitan sewerage systems. With the exception of the town of Eildon, whose sewerage system is controlled directly by the State Rivers and Water Supply Commission, the construction and management of sewerage works in Victoria's country cities and towns are the responsibility of local authorities supervised by the Commission. Except for the Geelong Waterworks and Sewerage Trust and the Latrobe Valley Water and Sewerage Board which have special Acts dealing with their activities, all sewerage authorities operate under the Sewerage

Districts Act. At 30 June 1965 there were fifty-six cities and towns with sewerage systems in operation. These contained about 520,000 persons, nearly one half of the total number of residents outside the metropolitan area.

Expenditure on sewerage in Victorian country towns at 30 June 1965 was approximately \$62,000,000, of which some \$47,000,000 had been advanced by private lenders. The annual State subsidy on country sewerage in Victoria is currently about \$1,200,000, provided mainly in the form of subsidies on interest rates paid along the same lines as for town water supply. Comparatively little capital is borne directly by the State.

Geelong Waterworks and Sewerage Trust. The Geelong Waterworks and Sewerage Trust was constituted in 1908 and reconstituted under the *Geelong Waterworks and Sewerage Act* 1909. It was further reconstituted in September 1950 to include a government nominee (Chairman), and provision was made for a commissioner to be elected by the ratepayers of the Shire of Corio, making a total of seven commissioners. The amount of loan money which may be raised is limited to \$24,000,000 for water supply undertakings and \$10,000,000 for sewerage undertakings. The population supplied is estimated by the Trust at 107,940 persons. This and other general information relates to 30 June 1965.

The *Geelong water supply scheme* comprises two systems for gathering and storing water, the water in both systems being brought over fifty miles to Geelong. There are seven storage reservoirs and eleven service basins whose total storage capacity is 13,292 million gallons. The length of water mains and reticulation is 550.4 miles. The total expenditure on water supply to 30 June 1965 was \$15,213,802. General fund expenditure for 1964-65 comprised \$408,412 for working expenses and \$816,902 for interest, redemption and reserves, while revenue amounted to \$1,236,976. The sinking fund appropriations at June 1965 amounted to \$840,134. The replacement and contingencies reserve amounted to \$919,872. There is a water rate of 1s. 7d. in the £ (equivalent to 7.9167 cents in the \$) (with minima of \$1 for vacant land and \$2 for tenements) on the net annual value of ratable properties.

The *Geelong sewerage scheme* consists of a main outfall sewer to the ocean and 302.7 miles of main and reticulation sewers. The sewerage area is 11,851 acres, and the number of buildings connected within the sewered areas is 25,531. The total expenditure on sewerage works to 30 June 1965 was \$6,271,202. The revenue in 1964-65 amounted to \$663,134, and the general fund expenditure comprised \$224,346 on working expenses and \$436,332 on interest, redemption and reserves. Sinking fund appropriations at 30 June 1965 were \$492,902. Replacement and contingencies reserve amounted to \$989,934. A general rate of 1s. 4d. in the £ (equivalent to 6.6667 cents in the \$) is levied on the net annual value of ratable properties.

Under the *Barwon River Improvement Act* 1939 a portion of the Barwon River is vested in the Geelong Waterworks and Sewerage Trust. General maintenance and improvements of the surrounding area is financed by the levying of an improvement rate of ½d. in the £ (equivalent to 0.2083 cents in the \$) on the net annual value of all lands within the Drainage Area. The revenue for 1964-65 amounted to \$23,920.

The Ballarat Water Commissioners and the Ballarat Sewerage Authority. The body known as the Ballarat Water Commissioners was constituted on 1 July 1880 and the Ballarat Sewerage Authority on 30 November 1920. The members of the Water Commissioners constitute the Sewerage Authority. General and financial information given herein relates to the year ended 31 December 1965.

The *Ballarat water supply district* comprises an area of about sixty-five square miles, containing a population of about 61,000. The total storage capacity of the seven reservoirs is 5,435 million gallons and the catchment area is 24,182 acres. The capital cost of construction of the waterworks was \$5,827,126 to 31 December 1965. The liabilities amounted to \$3,640,546 at 31 December 1965, including loans due to the Government totalling \$3,383,352. The revenue for the year 1965 was \$402,120. Working expenses during 1965 amounted to \$220,076 and interest and other charges to \$181,576. A water rate of 1s. 0d. in the £ (equivalent to 5 cents in the \$) on the net annual valuation is levied, with a minimum charge of \$3 per annum on any ratable property.

The *Ballarat sewerage district* comprises the City of Ballarat and parts of the Shires of Ballarat, Bungaree and Grenville and the Borough of Sebastopol. There are more than 188 miles of sewers. The capital cost of sewerage construction works to 31 December 1965 was \$4,101,674. Two hundred and sixty-two sewered areas had been declared as at 31 December 1965. Assessments in the sewerage district numbered 19,614, while those in sewered areas numbered 16,546. There were 14,596 buildings connected. The scheme is financed by debenture-issue loans from various financial institutions. The liabilities on account of loans secured for construction at 31 December 1965 amounted to \$3,610,992; redemption payments at that date totalled \$806,156. House connections financed by the Authority numbered 4,210. Revenue during 1965 amounted to \$414,622, and expenditure, which included \$238,780 for interest and redemption, was \$409,618. A sewerage rate of 1s. 4d. in the £ (equivalent to 6.6667 cents in the \$) on the net annual valuation is levied, with a minimum charge of \$6 on any ratable property.

Latrobe Valley Water and Sewerage Board. The Latrobe Valley Water and Sewerage Board was constituted on 1 July 1954. The Board consists of seven members, namely: two Government nominees (one of whom is Manager and also Board Chairman), three members elected by water supply, sewerage and river improvement authorities within the Latrobe Valley, and one representative each of the State Electricity Commission of Victoria and the Gas and Fuel Corporation of Victoria.

The Board is empowered to construct *water supply works within the Latrobe Valley*, but at present its main construction activities are confined to the central industrialized areas. Capital expenditure during 1964-65 totalled \$664,616 compared with \$630,906 in 1963-64. The total capital cost of construction of the waterworks was \$10,586,992 to 30 June 1965. Liabilities amounted to \$11,337,848, including loans due to the Government totalling \$11,127,040. Revenue for the year was \$717,730. Working expenses during 1964-65 amounted to \$533,490, including interest on loans amounting to \$325,182. The Board does not strike a rate, but supplies consumers, including local water supply authorities, by measure. The quantity supplied during the year ended 30 June 1965 was 9,700 million gallons.

The *Latrobe Valley sewerage system* consists of a main outfall sewer, about fifty-two miles in length. Wastes conveyed consist mainly of industrial wastes, such as paper wastes and gasification wastes, together with small quantities of domestic sewerage. The capital cost of the sewerage construction works to 30 June 1965 was \$5,671,714. Liabilities amounted to \$6,396,002, including loans due to the Government totalling \$5,798,080. Revenue in 1964-65 was \$275,484 and expenditure totalled \$305,230, including \$110,452 interest and other charges. No sewerage rate is levied, but a charge is made by measure for wastes both from industries and public authorities.

Other sewerage authorities. At 30 June 1965 seventy-eight other sewerage authorities had been constituted under the provisions of the Sewerage Districts Acts, and systems were in operation in fifty-three districts.

Queensland

Brisbane City Council (to 30 June 1965). This organization conducts the water supply and sewerage systems of the City of Brisbane, and also supplies, in bulk, the whole of the water used by the City of Ipswich and the major portion of that used by the City of Redcliffe. Redcliffe also supplements its supply from that of the Pine Rivers Shire Council.

Storage facilities for *Brisbane water supply* comprise the following (available capacities are shown in parentheses): Somerset Reservoir, 200,000 million gallons (55,000 million gallons); Lake Manchester, 5,806 million gallons (5,720 million gallons); Brisbane River, 543 million gallons (484 million gallons); Pure Water Reservoir, Holt's Hill, 8.3 million gallons (8.3 million gallons); Enoggera Reservoir, 1,000 million gallons (600 million gallons); Gold Creek Reservoir, 407 million gallons (400 million gallons). There are eighteen service reservoirs with a capacity of approximately 43 million gallons. The Somerset reservoir is a dual purpose project with a designed total holding capacity of 200,000 million gallons, 55,000 million gallons to be for water storage and 145,000 million gallons for flood mitigation. Water rating for the year ended 30 June 1965, was 3d. in the £ (equivalent to 1.25 cents in the \$) on the unimproved valuation of all ratable land, with a minimum charge of \$19 for the year for each assessment. The following table is a summary of operations of the complete Brisbane City Council system (Brisbane, Ipswich and Redcliffe) for the years 1960-61 to 1964-65.

BRISBANE WATER SUPPLY(a): SERVICES, 1960-61 TO 1964-65

Year	Services connected	Estimated population supplied	Average daily consumption	Total consumption for the year	Average daily consumption		Length of trunk and reticulation mains
					Per service	Per head of estimated population	
			mill. gals.	mill. gals.	gallons	gallons	miles
1960-61	171,820	626,470	46.8	17,100	273	74.8	2,196
1961-62	178,279	649,970	45.3	16,538	254	69.7	2,284
1962-63	182,804	665,479	48.3	17,644	264	72.6	2,378
1963-64	187,502	683,223	51.2	18,684	273	74.9	2,390
1964-65	192,875	700,658	61.4	22,409	318	87.6	2,538

(a) Includes Ipswich and Redcliffe.

The sewage treatment works of the *Brisbane sewerage scheme* is situated at Luggage Point at the entrance to the Brisbane River. Sewerage rating for the year ended 30 June 1965 was 2½d. in the £ (equivalent to 1.0417 cents in the \$) on the unimproved valuation of each portion of land, with a minimum charge of \$20 for the year. The following table is a summary of operations of the Brisbane sewerage scheme for the years 1960-61 to 1964-65.

BRISBANE SEWERAGE: SERVICES, 1960-61 TO 1964-65

Year	Premises connected	Estimated population served	Total sewage pumped for the year	Length of main, branch, reticulation, etc. sewers
			mill. gals.	miles
1960-61	62,781	232,290	5,222	853
1961-62	67,407	249,406	5,808	906
1962-63	71,754	265,490	6,673	944
1963-64	75,964	281,067	6,959	1,042
1964-65	84,390	312,243	6,565	1,222

Brisbane City Council water supply and sewerage systems—finances. The following table shows particulars of the finances of the water supply and sewerage undertakings of the Brisbane City Council for the years 1960-61 to 1964-65.

BRISBANE WATER SUPPLY AND SEWERAGE: FINANCES, 1960-61 TO 1964-65
(\$'000)

Service and year	Gross capital cost to 30 June	Revenue	Expenditure			Surplus (+) or deficit(—)
			Working expenses	Interest, redemption, etc. charges	Total (a)	
Water supply—						
1960-61 . .	36,874	4,630	2,089	1,759	4,617	+ 13
1961-62 . .	39,990	4,963	2,260	1,950	4,763	+ 201
1962-63 . .	43,059	5,650	2,334	2,168	5,218	+ 432
1963-64 . .	46,175	5,989	2,492	2,330	5,318	+ 670
1964-65 . .	49,768	7,030	2,827	2,436	5,889	+ 1,141
Sewerage—						
1960-61 . .	33,675	1,965	564	979	1,929	+ 36
1961-62 . .	35,907	2,072	592	1,130	2,091	— 19
1962-63 . .	39,854	2,525	592	1,304	2,336	+ 189
1963-64 . .	45,439	2,763	651	1,550	2,571	+ 192
1964-65 . .	50,184	3,664	803	1,705	3,434	+ 230

(a) Total, including other expenditure.

Country towns. In addition to the City of Brisbane, there were at 30 June 1964, 195 cities and towns in Queensland provided with water supply systems controlled by municipal and shire councils. At 30 June 1964 there were forty-two cities or towns in addition to Brisbane with sewerage systems. The receipts (other than loan and loan subsidy) of water undertakings controlled by the cities and towns referred to above amounted to \$6,222,470 in 1963-64. Expenditure amounted to \$6,309,630, including \$2,807,692 for debt charges. In addition, expenditure from loans and loan subsidy amounted to \$4,698,638. Finances of sewerage undertakings are incorporated in council general funds and are not available separately.

South Australia

The water supply and sewerage systems in this State were constructed mainly, and are maintained, by the Engineering and Water Supply Department, under the control of the Minister of Works. Works controlled by the Department are the Adelaide, Barossa, Beetaloo, Bundaleer, Moorook, Tod River, Warren, Yorke Peninsula and other country water districts systems, the Morgan-Whyalla water supply system, the metropolitan and country sewerage systems, the Metropolitan Flood Waters Scheme, and works on the River Murray constructed under the River Murray Waters Agreement. Several water supply schemes on the Murray River are operated by the Department of Lands in conjunction with its irrigation works, and supplies to Woomera and Leigh Creek coalfield are controlled by the operating authorities. The following tables show particulars of metropolitan and country waterworks combined.

WATERWORKS, SOUTH AUSTRALIA: SERVICES, 1960-61 TO 1964-65

Year	Assessments(a)		Area of districts supplied (a)	Capacity of reservoirs, tanks, etc.	Length of mains	Number of meters
	Number	Annual value				
		\$'000	'000 acres	mill. gals.	miles	
1960-61 . . .	319,108	81,187	13,119	35,405	9,292	232,072
1961-62 . . .	338,636	85,404	13,154	45,106	9,634	247,972
1962-63 . . .	357,342	92,737	13,287	45,062	9,996	262,571
1963-64 . . .	365,579	104,159	13,373	45,173	10,469	278,183
1964-65 . . .	376,425	109,651	13,524	45,179	10,748	292,212

(a) Excludes Morgan-Whyalla Water Supply—water sold by measure.

WATERWORKS, SOUTH AUSTRALIA: FINANCES, 1960-61 TO 1964-65
(\$'000)

Year	Invested capital at 30 June (a)	Revenue	Expenditure			Deficit
			Working expenses (b)	Interest	Total	
1960-61 . . .	130,367	8,569	6,377	4,747	11,124	2,555
1961-62 . . .	146,231	9,065	8,390	5,388	13,778	4,713
1962-63 . . .	161,817	9,903	7,975	6,395	14,370	4,467
1963-64 . . .	172,583	11,103	7,752	6,960	14,711	3,608
1964-65 . . .	189,205	11,955	8,475	7,694	16,169	4,214

(a) After deduction of depreciation. (b) Includes debt redemption.

Adelaide waterworks. At 30 June 1965 the Adelaide waterworks supplied a district of 216,352 acres. The capacity of reservoirs and storage tanks was 24,217 million gallons and there were 3,333 miles of mains. Water is also drawn from the 11,300 million gallon reservoir at South Para in the Barossa Water District. The Mannum-Adelaide pipeline conveys water from the River Murray to Adelaide at a rate of up to 66 million gallons a day. Water is delivered to the River Torrens or, by further pumping, to the River Onkaparinga. With further development, the main will operate as a closed system connected to the metropolitan reticulation. The pipeline supplements the Warren system and other country areas.

ADELAIDE WATERWORKS: FINANCES, 1960-61 TO 1964-65
(\\$'000)

Year	Invested capital at 30 June (a)	Revenue	Expenditure			Surplus (+) or deficit (—)
			Working expenses (b)	Interest	Total	
1960-61 . .	70,158	5,917	3,463	2,436	5,899	+ 18
1961-62 . .	77,254	6,302	4,754	2,738	7,492	— 1,190
1962-63 . .	83,461	6,874	4,143	3,380	7,522	— 649
1963-64 . .	86,692	7,796	3,861	3,610	7,471	+ 326
1964-65 . .	92,872	8,417	4,222	3,907	8,129	+ 289

(a) After deduction of depreciation. (b) Includes debt redemption.

Adelaide metropolitan sewerage system. The Adelaide metropolitan sewerage system, comprising the Adelaide, Glenelg, Port Adelaide and Salisbury-Elizabeth areas of 153 square miles in all, includes a sewage farm, and treatment works at Glenelg and Port Adelaide. Construction of a large treatment works at Bolivar is in progress to supersede the sewage farm and carry out increased load due to metropolitan expansion. Financial and other particulars for 1960-61 to 1964-65 are shown hereunder.

ADELAIDE METROPOLITAN SEWERAGE: SUMMARY
1960-61 TO 1964-65

Year	Length of sewers	Number of connections	Invested capital at 30 June (a)	Revenue	Expenditure			Surplus
					Working expenses (b)	Interest	Total	
	miles		\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
1960-61 . .	1,598	173,753	26,753	4,121	1,776	958	2,734	1,387
1961-62 . .	1,659	179,918	29,090	4,422	1,827	1,049	2,876	1,546
1962-63 . .	1,714	186,143	33,510	4,689	2,002	1,151	3,153	1,536
1963-64 . .	1,774	194,889	38,996	5,239	2,201	1,265	3,466	1,774
1964-65 . .	1,854	204,128	47,127	5,513	2,363	1,380	3,743	1,769

(a) After deduction of depreciation. (b) Includes debt redemption.

Country sewerage schemes. Sewerage schemes are operating at Port Lincoln, Naracoorte, Nangwarry, Mount Burr, Myponga, and Angaston. At Port Lincoln the sewers discharge to an ocean outfall, and treatment works are used on the other systems. There are 141 miles of sewers and 3,563 connections in the country systems. A sewerage scheme for Mount Gambier is under construction.

Country water supply. Water districts systems at 30 June 1965 comprised an area of 13,308,147 acres. Supply came from reservoirs having a total capacity of 20,851 million gallons, from the River Murray, and from underground sources. Apart from local supplies, water from the River Murray comes from branches of the Mannum-Adelaide main and from the Morgan-Whyalla main. The principal areas of underground supplies are in the south-east of the State, where water from the Murray Basin can be had at moderate depths or from lakes, and from sand beds on Eyre Peninsula. In the year 1964-65 supplies made to Mount Gambier, Naracoorte and other towns amounted to 1,030 million gallons, and the Uley-Wanilla, Lincoln and Poldia Basins contributed 618 million gallons to the Tod River Water District.

COUNTRY WATERWORKS, SOUTH AUSTRALIA: FINANCES
1960-61 TO 1964-65
 (\$'000)

Year	Invested capital at 30 June (a)	Revenue	Expenditure			Deficit
			Working expenses (b)	Interest	Total	
1960-61 . . .	60,209	2,651	2,914	2,311	5,225	2,573
1961-62 . . .	68,976	2,763	3,636	2,651	6,286	3,523
1962-63 . . .	78,356	3,030	3,833	3,015	6,848	3,818
1963-64 . . .	85,892	3,307	3,891	3,350	7,241	3,934
1964-65 . . .	96,333	3,538	4,253	3,787	8,040	4,502

(a) After deduction of depreciation.

(b) Includes debt redemption.

Morgan-Whyalla water supply scheme. This scheme, which has 223 miles of main, was officially opened on 31 March 1944, the capital invested to 30 June 1965 being \$24,067,200. Particulars of the scheme, where applicable, are included in the tables of the combined waterworks, page 855. Apart from supplying Whyalla, the main has been used to allow expansion of reservoir supplies in the northern agricultural area of the State, and to meet new demands caused by industrial growth at Whyalla duplication of the main is under way. During 1964-65 water used from the scheme amounted to 4,066 million gallons.

Western Australia

The principal water supply systems of Western Australia are under the control of two State authorities, the Metropolitan Water Supply, Sewerage, and Drainage Board and the Department of Public Works and Water Supply. The Metropolitan Water Supply, Sewerage, and Drainage Board is constituted under the provisions of the *Metropolitan Water Supply, Sewerage, and Drainage Act, 1909-1963* and consists of seven members appointed by the Governor. The area which constitutes the territory administered by the Board extends from Perth southward to Kwinana and Serpentine, northward to Sorrento, and eastward to Greenmount. The Department of Public Works and Water Supply controls the Goldfields and Agricultural Water Supply and the Great Southern Towns Water Supply as well as ninety-two local water supplies (*see also* the chapter Water Conservation and Irrigation, pages 185-6). Five independent town schemes are controlled by local Water Boards in country areas, and individual water supplies serve railways timber mill towns, isolated mines, pastoral properties, stock routes, and agricultural areas, mainly from dams, tanks, wells, and bores.

Metropolitan water supply, sewerage and drainage. The sources of the metropolitan water supply are Serpentine Reservoir and Serpentine Pipehead Reservoir, Canning Reservoir, Wungong Brook Diversion Weir, Churchman Brook Reservoir, and Victoria Reservoir. The supply from these sources is supplemented as necessary from a pipeline link with Mundaring Weir and from a number of artesian bores. The amount of bore water used, however, is now rarely more than 10 per cent of the total metropolitan consumption and is usually considerably less. The largest of these sources are the Serpentine Reservoir and the Canning Reservoir. Serpentine Reservoir is constructed of rolled earth fill, and the embankment rises 171 feet above the stream bed, the length at the crest being 1,390 feet. Its capacity is 39,000 million gallons, and the area of the catchment is 245 square miles. Canning Reservoir, with an estimated catchment area of 302 square miles, has a storage capacity of 20,550 million gallons retained by a concrete wall 218 feet high and 1,534 feet long at the crest. Water from storages on the Darling Range is conveyed to service reservoirs which serve an area of approximately 1,270 square miles, including the whole of the metropolitan area. To meet the peak demand during the summer months, supplies from these sources are supplemented from a system of artesian bores which can provide a daily maximum of 13 million gallons.

The following table shows particulars of the *metropolitan water supply services* for 1960-61 to 1964-65.

**METROPOLITAN WATER SUPPLY, WESTERN AUSTRALIA
SERVICES, 1960-61 TO 1964-65**

Year	Number of services (a)	Estimated population supplied (a)	Average daily consumption	Total consumption for year	Average daily consumption		Length of mains	Number of meters
					Per service (b)	Per head of estimated population (b)		
1960-61	133,647	446,000	mill. gals. 49.3	mill. gals. 18,015	gallons 374	gallons 112.3	miles 2,137	103,969
1961-62	137,960	460,730	50.6	18,492	373	111.6	2,179	116,610
1962-63	142,246	476,000	47.1	17,214	336	100.5	2,278	123,364
1963-64	149,033	491,740	53.2	19,454	362	109.7	2,411	130,480
1964-65	154,051	508,010	55.7	20,339	367	111.7	2,526	135,471

(a) Figures relate to 30 June.

(b) Calculated from averages for the year.

Water rating for 1964-65 was 1s. in the £ (equivalent to 5 cents in the \$) on annual valuation on land used for residential purposes and 1s. 6d. in the £ (equivalent to 7.5 cents in the \$) on annual valuation on land not so used.

Some particulars of the *metropolitan sewerage and main drainage services* for 1960-61 to 1964-65 are shown below.

**METROPOLITAN SEWERAGE AND MAIN DRAINAGE
WESTERN AUSTRALIA: SERVICES
1960-61 TO 1964-65**

Year	Services	Estimated population served	Length of sewers	Length of main drains
			miles	miles
1960-61	66,664	264,000	724	72
1961-62	67,378	239,110	736	77
1962-63	68,223	240,700	751	81
1963-64	68,958	241,700	769	94
1964-65	69,553	242,340	777	100

Sewerage rating for 1964-65 was 1s. 9d. in the £ (equivalent to 8.75 cents in the \$) on annual valuation, while metropolitan main drainage rating was 4d. in the £ (equivalent to 1.6667 cents in the \$).

Metropolitan Water Supply, Sewerage and Drainage Board—finances. The following table shows particulars of the finances of the Western Australian Metropolitan Water Supply, Sewerage and Drainage Board.

METROPOLITAN WATER SUPPLY, SEWERAGE AND MAIN DRAINAGE
WESTERN AUSTRALIA: FINANCES, 1960-61 TO 1964-65
(\$'000)

Service and year	Capital cost to 30 June	Revenue	Expenditure			Surplus (+) or deficit (-)
			Working expenses	Interest and debt redemption	Total	
Water supply—						
1960-61 . . .	40,513	3,461	1,680	1,760	3,440	+ 21
1961-62 . . .	44,312	3,607	1,545	1,976	3,521	+ 85
1962-63 . . .	48,489	3,705	1,505	2,175	3,680	+ 25
1963-64 . . .	51,482	4,175	1,583	2,502	4,084	+ 91
1964-65 . . .	54,334	4,370	1,653	2,641	4,294	+ 76
Sewerage—						
1960-61 . . .	15,287	1,868	1,011	723	1,734	+ 134
1961-62 . . .	16,603	1,877	1,050	893	1,944	- 67
1962-63 . . .	18,119	2,261	1,102	1,019	2,120	+ 141
1963-64 . . .	19,851	2,323	1,214	1,015	2,229	+ 93
1964-65 . . .	22,050	2,426	1,272	1,053	2,325	+ 101
Main drainage—						
1960-61 . . .	3,543	228	100	158	258	- 30
1961-62 . . .	3,950	240	126	181	307	- 66
1962-63 . . .	4,383	296	151	200	351	- 54
1963-64 . . .	4,998	310	153	217	370	- 60
1964-65 . . .	5,641	342	191	238	429	- 87

Country water supplies. Information concerning country water supplies is included in the chapter Water Conservation and Irrigation (see pages 185-6).

Tasmania

Waterworks. At the end of 1964-65 there were ninety-six municipally operated waterworks in Tasmania. The capacity of the reservoirs was 2,293 million gallons, the estimated population served was 304,550, and the number of properties served was 97,149. A regional scheme is operated as a State concern, supplying bulk water to the municipalities of Evandale, George Town, Lilydale, St. Leonards, and Westbury. In addition, this same scheme supplies water direct to industry situated near the Tamar River. The overall control of water supply in the greater Hobart area, comprising the municipalities of Hobart, Clarence, Glenorchy, and Kingborough, is now vested in the Metropolitan Water Board, but the municipalities retain primary responsibility for reticulation. The Board has undertaken the construction of a new bulk supply, with an ultimate daily capacity of 20 million gallons. This scheme is now virtually complete, and the anticipated total cost is \$5,140,000. During 1964-65 the metropolitan water supply was extended to serve the towns of Cambridge, Midway Point and Sorell. Provision has also been made for a second stage of the extension to serve the towns of Rokeby, Lauderdale and Seven Mile Beach. The initial estimate for the cost of these extensions was \$1,329,600.

Sewerage. At the end of 1964-65 there were twenty-one municipal sewerage schemes in operation in Tasmania. They served an estimated population of 202,000 and the number of tenements served was 54,300.

Northern Territory

Information relating to water supply in the Northern Territory may be found in the chapter Water Conservation and Irrigation (see pages 188-9).

Australian Capital Territory

The water supply, sewerage and drainage systems in the Australian Capital Territory are under the control of the Commonwealth Department of Works. The sources of the water supply are: Cotter Dam (capacity 967 million gallons) and Bendora Dam (2,360 million gallons). Eight pumps are capable of pumping approximately 27 million gallons daily. The total population served in

the Australian Capital Territory, which during 1964-65 consumed 4,800 million gallons of water, was 89,210 (at 30 June 1965). In addition, the Canberra water supply system supplied 373 million gallons of water to Queanbeyan, New South Wales. The total number of water meters at 30 June 1965 was 19,781 and the total length of water lines was 377 miles. The sewerage system for Canberra and suburbs consists of a treatment works, 295 miles of sewerage reticulation and 6½ miles of rising mains (at 30 June 1965). There were also 298 miles of stormwater sewers.

Harbour boards and trusts

The number and net tonnage of vessels which entered the major ports in each State during the years 1963-64 and 1964-65 are shown in the chapter Transport and Communication (*see* page 450). Particulars of oversea and interstate cargo discharged and shipped during 1964-65 are shown on page 451 of the same chapter.

New South Wales

Maritime Services Board of New South Wales. The Maritime Services Board of New South Wales is a corporate body of seven Commissioners comprising three full-time members and four part-time members representing shipping and other maritime interests. The Board was constituted on 1 February 1936, under the Maritime Services Act, 1935, to co-ordinate the port and navigation services of the State, which had previously been administered by the Sydney Harbour Trust and by the State Department of Navigation. The Board exercises general control over intra-state shipping, including the survey and certification of vessels, the licensing of harbour craft, and the examination and issue of certificates to officers. It is responsible for the provision of pilotage services, lights, beacons, buoys, and other port facilities, imposes and collects rates and charges on goods and vessels, and is vested with the general control and management of the navigable waters and ports within the State. At the ports of Sydney, Newcastle and Botany Bay the Board is also responsible for the provision of adequate wharfage and channels and carries out all construction, maintenance and dredging work. All revenue earned by the Board at the ports of Sydney, Newcastle and Botany Bay, with the exception of that earned from pilotage and navigational services, is credited to the Maritime Services Board Fund, and all revenue expenditure incurred at the three ports is drawn from that Fund. The following table shows particulars of the finances of the Board in respect of the ports of Sydney, Newcastle and Botany Bay.

MARITIME SERVICES BOARD FUND: FINANCES OF THE PORTS OF SYDNEY, NEWCASTLE AND BOTANY BAY, 1960-61 TO 1964-65
(\$'000)

Year	Revenue				Expenditure(a)			Surplus
	Wharfage and transhipment rates	Tonnage rates and berthing charges	Other charges	Total	Administration and maintenance	Interest, debt redemption, exchange, etc.	Total	
1960-61 .	6,261	1,263	1,855	9,379	5,130	4,162	9,293	87
1961-62 .	9,308	1,399	2,585	13,293	7,513	5,714	13,228	65
1962-63 .	9,693	1,581	2,438	13,712	7,543	6,056	13,599	113
1963-64 .	10,838	1,755	2,933	15,526	7,864	7,567	15,431	95
1964-65 .	11,594	1,858	3,565	17,017	9,109	7,835	16,945	72

(a) Excludes capital expenditure but includes transfers to the Renewals Fund Reserve Account(\$2,050,000 in 1960-61, \$2,750,000 in 1961-62, \$3,091,000 in 1962-63, \$4,778,000 in 1963-64, and \$5,080,000 in 1964-65.)

Port of Sydney. The entrance to Sydney Harbour, the principal port of New South Wales, is nearly a mile wide, and the depth of its navigable channel is not less than 80 feet. Between the entrance, known as 'The Heads', and the Harbour proper, a distance of four miles, there are two separate channels, each 700 feet wide, the Western Channel not less than forty-two feet deep (low water ordinary spring tide) and the Eastern Channel forty-two feet deep. The foreshores, which have been reduced by reclamations, are 152 miles in length, and the total area of the port is 13,600 acres, or twenty-one square miles, of which about one-half has a depth of thirty feet or more at low water ordinary spring tide. The mean range of tides is 3 feet 6 inches.

The wharves are situated close to the business centre of the city, about four or five miles from the Heads. At 30 June 1965 there was one dolphin berth 550 feet long, and ninety-three effective commercial cargo berths with a total length of 47,471 feet, controlled by the Board.

Accommodation for harbour craft amounts to 2,395 feet, while the length of other berths, including oil and private wharves, totals 22,615 feet. Depth of water at wharves is up to thirty-six feet. Special facilities for the storage and handling of products such as wheat, wool, coal, etc. are provided, and modern plant has been installed for replenishing ships' bunkers with oil or coal. Docking facilities are available for the largest vessel afloat. The Captain Cook Graving Dock ranks among the largest graving docks in the world, being 1,139 feet by 147 feet $7\frac{1}{2}$ inches with a depth of 45 feet 2 inches over the sill at high water. There are also several smaller dry docks and floating docks in the port.

Port of Newcastle. As from 1 May 1961 the Maritime Services Board of New South Wales became the single authority for the port of Newcastle. An Advisory Committee consisting of eight members, appointed by the Governor, assists the Board in matters associated with the operation of the port. It is primarily a coal-loading port, and the proximity to the coal fields has led to the establishment of important industries, including iron and steel works, in the district. Facilities are available for the shipment of wool, wheat and frozen meat, and a wharf is available for timber.

The area used by shipping is about 570 acres, excluding the entrance to the harbour and the inner basin, which together cover an area of 162 acres. The width of the harbour at the entrance is 1,200 feet, and the navigable channel, with a depth of twenty-six feet at low water, is 350 feet wide. Work is now in hand to increase the depth to thirty-six feet for a width of 500 feet. Wharfage accommodation amounts to approximately 16,000 feet, including about 2,600 feet of privately owned wharfage. There are also two dolphin berths available for tie-up purposes. A floating dock of 15,000 tons capacity is available at the port.

Botany Bay. The Maritime Services Board of New South Wales is the administrative and controlling authority. The port is primarily a discharging centre for the oil refinery at Kurnell, near Sydney, and two berths are available as well as tanker mooring buoys. The entrance to the Bay is approximately one and a quarter miles wide, with a minimum depth of about thirty-six feet in the dredged swinging basin.

Port Kembla. As from 3 May 1948 the Maritime Services Board assumed the administration and navigational control of Port Kembla, which had previously been administered by the New South Wales Department of Public Works. This Department, however, continues to be the constructing authority in respect of works, dredging and maintenance. An Advisory Committee consisting of nine members, appointed by the Governor, has been formed to assist the Board in the operation of the port. It has an area of approximately 340 acres, with depths ranging from twenty to fifty feet (low water ordinary spring tide), and wharfage accommodation totalling 8,000 feet has been provided for large ocean-going vessels. No cargo sheds are available, as the nature of trade at the port does not call for the provision of sheltered storage accommodation at the berths. It is the port of the southern coalfields and for the expanding industrial area in and about Wollongong. The developmental programme for Port Kembla includes the construction of an inner harbour to provide wharfage for the steelworks in addition to modern general cargo berths; a coal loading plant capable of loading at the rate of 2,000 tons per hour is now available. Present accommodation is 1,900 feet of wharfage, with thirty-six feet (low water ordinary spring tide) of water alongside. Width in the entrance to the inner harbour basin is 400 feet.

Other ports. In addition to the ports of Sydney, Newcastle, Port Kembla, and Botany Bay, the Board controls twenty-nine outports along the coastline of 609 miles. The shipping trade of these outports is relatively small.

Port charges. The port charges payable in respect of shipping and ships' cargoes in New South Wales are imposed by the Commonwealth Government in terms of the Lighthouses Act and the Navigation Act, and by the State authorities under the Navigation Act of New South Wales, the Harbour and Tonnage Rates Act, and the Sydney Harbour Trust Act. Since 1 February 1936 the State enactments have been administered by the Maritime Services Board. The gross collections by the State authorities amounted to \$22,865,196 in 1964-65. This figure includes the revenue for the ports of Sydney, Newcastle and Botany Bay (see table on page 860) and State navigation service collections, \$5,848,380 (1964-65).

Victoria

Melbourne Harbor Trust. Information regarding the origin and constitution of this Trust, which controls the port of Melbourne, appears in Official Year Book No. 12, pages 970-2. The port of Melbourne comes under the control of the Melbourne Harbor Trust Commissioners, an independent autonomous statutory organization, with a full-time Chairman and five part-time Commissioners with specialized knowledge of the requirements of exporters, primary producers, shipowners, importers, and of all aspects of port labour. The area of water and land under the control of the Trust is ten and a half square miles, with sheds available for cargo in transit totalling 22,928 feet in length and covering an area of about forty-three acres. Three of the

largest transit sheds on the Australian coast are now in operation at Appleton Dock. The sheds are 600 feet long by 150 feet wide, each with a cargo stacking area of 81,000 square feet. The berths are used for the general cargo trade and have both rail and crane facilities and modern amenities for port workers. The total length of wharves, piers and jetties in the port is 61,550 feet, covering an area of about fifty-nine acres with 56,940 feet of effective berthing space.

During 1965 major reconstruction and modernization of several cargo berths in the Port including 1-4 Victoria Dock and 19 South Wharf was concluded. Construction of a new shipping control centre seventy-four feet above ground level, with radar and visual observation of the entire port area, was continued. The specifications and design for the construction of a 250-ton dual purpose floating crane were finalized and tenders called for the building of the crane. A modernization programme costing \$720,000 was undertaken on the main overseas passenger terminal at Station Pier. The depth of water (low water ordinary spring tide) from the main channels to the principal wharves is thirty-one to thirty-nine feet. The following table shows particulars of the financial operations of the Trust.

MELBOURNE HARBOR TRUST: FINANCES, 1961 TO 1965
(\$'000)

Year	Gross loan indebtedness at 31 December	Revenue		Expenditure				Surplus (+) or deficit (-)
		Wharfage and tonnage rates	Total	Administration and maintenance	Interest, debt redemption, exchange, etc.	General reserve, depreciation, renewals and insurance account	Total	
1961	28,481	4,607	7,583	5,422	1,821	408	7,652	- 69
1962	29,750	4,883	7,958	5,176	1,788	969	7,932	+ 26
1963	29,835	5,459	8,969	5,411	1,898	1,546	8,855	+114
1964	29,773	7,145	11,312	6,687	2,632	1,812	11,132	+181
1965	30,473	7,058	11,434	6,450	2,393	2,382	11,226	+208

Geelong Harbor Trust. The Geelong Harbor Trust, constituted in 1905, is under the control of three Commissioners appointed from time to time by the Governor-in-Council. At the end of 1965 there were eighteen effective berths in the port, plus two berths at the Commonwealth Explosives Pier, Point Wilson, owned and operated by the Commonwealth. Point Henry Pier, a 4,000 feet alumina discharging structure, was officially opened on 13 April 1966, and Corio Quay South No. 1, a new general cargo and meat loading berth, is expected to come into operation by late 1966. The construction of a modern dry bulk berth with an initial discharge rate of 1,000 tons per hour will commence in 1966, but the four seven and half ton cranes to operate on this berth have in the meantime commenced to operate on the adjacent Kings Wharf. Eight berths have a depth of thirty-six feet at low water, while all other berths (except Commonwealth Explosives Pier, Point Wilson and Point Henry Pier, thirty feet) have a depth of thirty-two feet at low water. Revenue for the year 1964 was \$3,102,766 and expenditure from revenue totalled \$1,740,288. At 31 December 1964 the value of the Trust's fixed assets was \$20,090,408 and loans outstanding amounted to \$7,185,212.

Portland Harbor Trust. Construction of an all-weather deep-sea port of three berths with a low water depth of thirty-six feet was completed to operational standards in 1960. A new oil tanker berth was brought into commission during 1963, from which petroleum products are pumped to bulk terminals at North Portland, and the completion of a bulk grain terminal now provides in-transit storage for one million bushels of grain awaiting overseas shipment. The Trust has now embarked on a new construction programme to provide additional bulk berth, designed primarily for the discharge of phosphate rock, sulphur and other chemicals. Operating revenue for the year ended 30 June 1965 was \$257,568 and revenue expenditure was \$233,846. The value of the Trust's fixed assets, less depreciation, was \$15,705,420 at 30 June 1965, and loans and advances outstanding amounted to \$16,393,156.

Queensland

The ports of Queensland, except Brisbane and certain minor ports, are administered by Harbour Boards with members representing the towns and districts served by the ports. Brisbane and the minor ports are controlled by the State Treasury through the Department of Harbours and Marine, which supervises the engineering activities of the other ports.

Brisbane. Brisbane accommodates comfortably, in its dredged and improved river, the largest vessels in the Australian trade. The main centres for shipping, although further downstream than formerly because of the increasing size of vessels, are still within easy access of the city. Adequate dry-docking facilities are available. The finances of Brisbane Harbour for the years 1959-60 to 1963-64 are shown below.

BRISBANE HARBOUR: FINANCES, 1959-60 TO 1963-64
(\$'000)

Year	Loan indebtedness at 30 June	Receipts		Payments	
		Harbour dues	Total	Working expenses(a)	Total
1959-60 .	5,024	1,544	2,118	1,462	1,906
1960-61 .	5,626	1,526	2,328	1,358	1,802
1961-62 .	5,432	1,484	2,168	1,256	1,698
1962-63 .	5,296	1,640	2,514	1,774	2,146
1963-64 .	5,032	1,858	2,500	3,346	3,838

(a) Excludes interest and redemption included in total.

In addition to Brisbane harbour, the Department of Harbours and Marine also controls the Brisbane Dry Dock, the Cairncross Dock, and nine smaller harbours not administered by harbour boards.

Harbour Boards. Harbour boards control the ports of Bowen, Bundaberg, Cairns, Gladstone, Mackay, Rockhampton, and Townsville. Finances for each port for the year ended 30 June 1964 are shown below, together with a summary for the years ended 30 June 1960 to 1964.

HARBOUR BOARDS, QUEENSLAND: FINANCES, 1959-60 TO 1963-64
(\$'000)

Harbour board	Loan indebtedness at 30 June	Revenue		Expenditure (excluding loan)		Surplus(+) or deficit(-)
		Wharfage and harbour dues	Total	Working expenses	Total (including interest and redemption) (a)	
Bowen	535	23	28	19	28	..
Bundaberg	6,226	573	887	239	813	+ 74
Cairns	5,328	441	744	239	758	- 14
Gladstone	2,266	176	517	65	473	+ 45
Mackay	4,228	361	1,091	364	965	+127
Rockhampton . . .	2,176	85	114	47	109	+ 5
Townsville	7,610	670	2,037	388	2,257	-220
Total, 1963-64 .	28,369	2,329	5,419	1,362	5,402	+ 17
1962-63	22,619	2,179	4,119	1,203	3,731	+388
1961-62	19,682	1,883	3,571	997	3,248	+322
1960-61	18,791	1,724	3,366	1,095	3,251	+116
1959-60	16,861	1,818	3,614	1,123	3,054	+561

(a) Includes expenditure on capital works from accumulated revenue.

South Australia

The South Australian Harbors Board. All South Australian harbours are controlled by the South Australian Harbors Board, which consists of three Commissioners appointed by the Governor for a period of five years and eligible for re-appointment. The Board is responsible to the Minister of Marine for the discharge of its duties and functions. The most important

ports are the five deep-sea ports of Port Adelaide, Port Pirie, Wallaroo, Port Lincoln, and Thevenard. At a few ports the wharves or jetties are privately controlled, the principal of these being at Whyalla, Ardrossan and Rapid Bay, all of which are controlled by the Broken Hill Pty. Co. Ltd. Port Augusta is controlled by the Commonwealth Railways on behalf of the Commonwealth Government. Maximum depths of water (low water) at the wharves of the main ports range from twenty-seven feet at Port Pirie to thirty-five feet at Port Adelaide (Outer Harbor). The following table shows the finances of the Board for 1960-61 to 1964-65.

THE SOUTH AUSTRALIAN HARBORS BOARD: FINANCES
1960-61 TO 1964-65
(\$'000)

Year	Capital at 30 June (a)	Revenue	Expenditure from revenue			Surplus
			Working expenses	Interest	Total	
1960-61 .	34,864	5,429	3,369	1,317	4,686	744
1961-62 .	37,112	5,153	3,353	1,402	4,755	399
1962-63 .	38,968	5,098	3,344	1,531	4,876	222
1963-64 .	40,996	6,114	3,591	1,581	5,172	942
1964-65 .	42,474	6,201	3,908	1,679	5,587	614

(a) State Treasurer's funds and reserve employed.

Western Australia

Fremantle Port Authority. The Port of Fremantle is operated and controlled by a body corporate administered by a Board of five Commissioners appointed triennially by the Governor. The port covers an extensive water area of some 180 square miles and comprises an inner and an outer harbour. The inner harbour includes eighteen deep-water land-backed berths, providing 703,850 square feet of covered storage space and 11,148 feet of wharf berth accommodation. All inner harbour berths are dredged to a low water depth of thirty-six feet. The outer harbour includes three main anchorages, Gage Roads, Owen Anchorage and Cockburn Sound. Deep-water jetties, including the oil refinery jetty in Cockburn Sound, are available in the outer harbour. Ocean-going deep draft ships enter the Sound by means of channels dredged through Success and Parmelia Banks to a low water depth of thirty-eight feet and a bottom width of 500 feet. In the outer harbour there are three tanker berths each with a low water depth of forty-four feet at the Kwinana oil refinery, one berth at the nearby steelworks jetty with a low water depth of thirty feet, and one berth at the alumina works jetty with a low water depth of forty feet. There are also special berths for the off-loading of cattle and the handling of explosives. Gross earnings for 1964-65 amounted to \$7,334,376, working expenses to \$5,673,740, interest charges on loan capital \$703,828, sinking fund contributions \$190,396, and capital and other funds employed totalled \$18,138,468.

Albany Harbour Board. The Albany Harbour is controlled by a board of five members appointed by the Government. The depth of water in the entrance channel is thirty-three feet, at one arm of the jetty thirty-one feet and at the other arm thirty-three feet. In the approaches to wharf berths the depth is thirty-three feet. Wharf accommodation consists of 1,115 feet, and in addition the Deepwater Jetty has 2,500 feet of accommodation. Gross earnings for the year 1964-65 amounted to \$350,174, working expenses \$155,278, interest and sinking fund charges \$199,666, and capital account totalled \$3,828,084.

Bunbury Harbour Board. The Bunbury Harbour is controlled by a board of five members appointed by the Government. The depth of water in the harbour is thirty feet and berthing accommodation is 4,300 feet. Gross earnings for the year 1964-65 amounted to \$532,826, working expenses \$327,814, interest on loan capital \$288,128, and capital account totalled \$6,195,300.

Other ports. The following ports are controlled by the State Government Harbour and Light Department: Broome, Busselton, Carnarvon, Dampier, Derby, Esperance, Exmouth, Geraldton, Onslow, Point Samson, Port Hedland, Wyndham, and Yampi.

Tasmania

There are eight marine boards and one harbour trust in Tasmania. The marine boards control the ports of Hobart, Launceston, Stanley (Circular Head), Burnie and Wynyard (Table Cape), Devonport and Ulverstone, Strahan, Currie (King Island), and Whitemark (Flinders

Island), and the harbour trust controls the port of Smithton. Hobart, Launceston, Burnie, and Devonport are the principal ports of Tasmania. In addition to their interstate and intra-state traffic, there is also considerable overseas shipping. Depths of water at wharves vary, in general, between sixteen and forty feet.

The following table shows particulars of the finances for each port for 1964-65.

MARINE BOARDS AND HARBOUR TRUST, TASMANIA: FINANCES, 1964-65
('\$000)

Authority	Loan indebtedness at 30 June (a)	Receipts (revenue account)		Expenditure (revenue account)		Surplus(+) or deficit(-)
		Wharfage charges	Total	Loan charges	Total	
Hobart . . .	2,700	741	1,505	289	1,486	+ 18
Launceston . . .	2,783	595	1,587	220	1,451	+135
Devonport . . .	3,886	560	857	313	1,023	-166
Burnie . . .	7,473	566	1,001	448	948	+ 53
Circular Head . . .	143	14	31	19	31	+ 1
King Island . . .	81	25	32	6	28	+ 5
Strahan . . .	29	27	34	4	33	+ 1
Flinders Island . . .	4	12	14	2	12	+ 2
Smithton . . .	..	..	1	..	3	- 2
Total . . .	17,099	2,542	5,062	1,302	5,015	+ 47

(a) The total of new loans raised during 1964-65 was \$2,842,000, of which Launceston raised \$650,000, Devonport \$600,000, Burnie \$1,574,000, and King Island \$18,000.

Fire brigades

New South Wales

A Board of Fire Commissioners, consisting of five members, one appointed by the State Government (President) and one each representing insurance companies, local government authorities, volunteer firemen, and permanent firemen, operates under the Fire Brigades Act, 1909-1958, and 157 fire districts had been constituted at the end of 1964. The cost of maintenance of fire brigades is borne in proportions of local councils and the Government each one-eighth, and the insurance companies three-quarters. The Board's borrowing power is limited to \$2,000,000.

At 31 December 1964 the authorized strength of the Fire Brigade throughout the fire districts of New South Wales was 421 officers and 1,296 permanent and 2,676 volunteer firemen. Corresponding figures for the Sydney Fire District were 344, 1,151 and 292. The revenue for the year 1964 was \$7,539,320, made up as follows: from the Government, \$933,840; municipal and shires, \$933,840; fire insurance companies and firms, \$5,603,040; and from other sources, \$68,600. The disbursements for the year were \$7,986,912. The Board of Fire Commissioners provides the fire protection services for Canberra, in the Australian Capital Territory, and the cost of these services is reimbursed by the Commonwealth Government.

Under the Bush Fires Act, 1949-1963 a Bush Fire Fighting Fund exists from which finance is provided for the prevention and fighting of bush fires. Contributions to the Fund by the Government, councils and insurance companies are in the proportion of one quarter, one quarter and one-half, respectively. At 30 June 1965 Volunteer Brigades equipped by means of this fund numbered 2,500 with an active membership of about 150,000 persons. The approved expenditure from the Fund for equipment, up to 30 June 1966, amounted to \$6,823,754.

Victoria

In Victoria, fire brigades are controlled by the Metropolitan Fire Brigades Board consisting of ten members, including an employees' representative, and the Country Fire Authority also consisting of ten members.

Metropolitan Fire Brigades Board. The Metropolitan Fire Brigades Board receives contributions from the municipalities and the insurance companies in the proportion of one-third and two-thirds respectively. On 30 June 1965 the Board had under its control forty-five stations, 1,051 permanent staff, 233 special service and clerical, etc. staff, and twelve part-time firemen. The total receipts for 1964-65 were \$5,051,498, comprising contributions \$4,263,914, receipts for services \$487,420, and interest and sundries \$300,164. The expenditure was \$4,886,864.

Country Fire Authority. This authority is responsible for the prevention and suppression of fires in the 'country area of Victoria', which embraces the whole of the State outside the Metropolitan Fire District, excluding State forests and certain Crown lands. The country area has been divided into twenty-five fire control regions, four of which (Ballarat, Bendigo, Geelong and the Dandenong, Chelsea and Frankston areas) are wholly urban and the remainder mixed urban and rural. The Country Fire Authority receives contributions in the proportion of two-thirds from insurance companies and one-third from the Treasury. At 30 June 1965 the Country Fire Authority Act applied to 199 insurance companies and 205 urban and 1,043 rural fire brigades. The effective registered strength of the brigades was 111,599 members. Income for the year 1964-65 amounted to \$1,773,268. Total expenditure other than loan amounted to \$1,604,430.

Queensland

Fire Districts are constituted under the Acts of 1920-1956. For each district, there must be a Fire Brigades Board consisting of seven members, and the cost of maintenance of each brigade is proportioned as follows: Treasury one-seventh, insurance companies five-sevenths, and local authorities one-seventh. The insurance companies' contribution is paid to the State Government and thence to fire brigades.

At 30 June 1964 there were eighty-three Fire Brigade Boards. The number of stations was 155 and full-time staff numbered 916, including 24 administrative, 205 officers and 687 firemen. Volunteers numbered 123. Part-time staff numbered 1,195, including 86 administrative, 125 officers and 984 firemen. The total revenue for the year 1963-64 was \$3,366,500, received mainly from the following sources: Government \$454,588, local authorities \$454,588, insurance companies \$2,272,930. Loan receipts (Government and other) were \$1,063,904. The total expenditure for the year was \$3,243,140, the chief items being salaries and wages \$2,304,796, and interest and redemption of loans \$360,716.

South Australia

The Fire Brigades Act, 1936-1958 provides for a board of five members, and the expenses and maintenance of brigades are defrayed in the proportion of two-ninths by the Treasury, five-ninths by insurance companies and two-ninths by the municipalities concerned. When the Treasury proportion exceeds its statutory contribution of approximately \$26,000, the excess is borne five-sevenths by insurance companies and two-sevenths by the municipalities. At 30 June 1965 there were altogether thirty-seven fire brigade stations, of which thirteen were metropolitan and twenty-four country.

The strength of the permanent staff at 30 June 1965, was 416, including 290 officers and men, 92 country auxiliary firemen and 34 other employees (including maintenance workers). The total revenue for the year 1964-65 was \$1,239,990, including contributions of \$1,025,442 made up as follows: insurance companies \$617,038, Treasury \$161,590 and municipalities \$246,814. The Treasury contribution includes an additional grant of \$135,750.

Western Australia

By the provisions of the *Fire Brigades Act, 1942-1964* certain local government areas are constituted fire districts under the control of the Western Australian Fire Brigades Board. There were fifty-one fire districts at 30 September 1965. The contribution to the Board is made in the proportion of 16 per cent from the Government, 20 per cent from local government authorities, and 64 per cent from insurance companies. The number of local government authorities and insurance companies who contributed numbered sixty-nine and 168 respectively. The brigades, throughout the State, controlled by the Western Australian Fire Brigades Board at 30 September 1965 numbered sixty-seven, with a staff of 1,539, including 307 permanent officers and firemen and 1,232 volunteer brigade officers and firemen. The revenue for the year ended 30 September 1965 was \$1,557,742 and the expenditure \$1,581,328.

Under the *Bush Fires Act, 1954-1964* a Bush Fires Board, consisting of thirteen members, six of whom are nominated by the Country Shire Councils Association, was set up to advise the Minister for Lands on bush fire control. The Act also provides for the registration of bush fire control officers, who numbered 2,004 at 30 June 1965, and the establishment of bush fire brigades, 861 at 30 June 1965. Many individual brigades are large organizations with numerous self-contained sections.

Tasmania

The *Fire Brigades Act* 1945 provided for the creation of the Fire Brigades Commission of Tasmania to co-ordinate the activities of existing fire brigade boards, while leaving the responsibility for individual control and management with the boards. The Commission consists of two persons nominated by the Minister, one person elected by the City or Municipal Councils' representatives and three persons elected by the insurance representatives of the Fire Brigades Boards. Contributions towards the cost of operations are on the basis of one quarter each from the treasury and the municipalities and one half from the insurance companies concerned. The cost for the year 1964-65 amounted to \$516,738. There were, at 30 June 1965, twenty-three boards controlling thirty-six stations, and their aggregate staffs numbered 564, including 127 permanent officers, 367 part-time firemen, including officers, and 70 volunteers.

CHAPTER 23

RURAL INDUSTRY

This chapter is divided into five major parts:

- Introduction, dealing with general rural activity in Australia;
- The soils of Australia, a special feature in this issue;
- Agricultural production;
- Pastoral production; and
- Other rural industries, which includes the dairying, poultry and bee industries.

For greater detail on the subjects dealt with in this chapter see the annual bulletins *Rural Industries, Non-Rural Primary Industries and Value of Production*, and *Secondary Industries* (regarding butter, cheese, etc., factories) issued by this Bureau. Current information on commodities produced is obtainable in the *Quarterly Summary of Australian Statistics*, *Monthly Review of Business Statistics*, *Monthly Bulletin of Production Statistics*, and *Digest of Current Economic Statistics* (monthly). The series of bulletins *Classification of Rural Holdings by Size and Type of Activity*, 1959-60 shows particulars of rural holdings classified by size, nature and area of crops, and numbers of livestock, and also according to main type of activity. The mimeographed annual *Report on Food Production and the Apparent Consumption of Foodstuffs and Nutrients in Australia* contains details of the production and utilization of foodstuffs. The following mimeographed publications also contain considerable detail on the particular subjects dealt with.

General. *Value of Production and Indexes of Price and Quantum of Farm Production* (annual), *Value of Primary Production (Preliminary Statement)* (annual), *Farm Machinery on Rural Holdings* (annual), *Tractors on Rural Holdings*, 31 March 1963 (detailed information), *New Tractors: Receipts, Sales and Stocks* (quarterly), and *New Agricultural Machinery* (quarterly).

Agricultural production. *Rural Land Use and Crop Production* (annual), *Agricultural Statistics (Preliminary Statement)* (annual), *The Wheat Industry* (two a year), *The Fruit Growing Industry* (annual), and *Fruit Statistics (Preliminary Statement)* (annual).

Pastoral production. *Livestock Statistics* (annual), *Livestock Numbers* (annual), *The Meat Industry* (monthly), *Wool Production* (annual), and *Wool Production and Utilization* (annual).

Other rural production. *The Dairying Industry* (monthly and half-yearly), *Livestock Statistics* (annual), *Livestock Numbers* (annual), *Manufacturing Industries No. 20.—Bacon Curing and No. 21.—Butter, Cheese and Condensed, Concentrated, etc., Milk* (annual), *Production Summaries No. 36.—Preserved Milk Products and No. 55.—Butter and Cheese* (monthly), and *Bee-farming* (annual).

Values of Australian oversea trade shown throughout this chapter are expressed as \$A f.o.b. port of shipment.

Throughout this chapter yearly periods for area and production of crops relate to years ended 31 March. Other periods in respect of e.g. factory and trade statistics relate to years ended 30 June.

INTRODUCTION: RURAL ACTIVITY

Number and area of rural holdings

Number and area

A holding in Australia has been defined by statisticians on a more or less uniform basis, and discrepancies which exist are not of sufficient importance to prevent comparisons. For the purpose of these statistics a holding has been defined as land of one acre or more in extent used in the production of agricultural produce or for the raising of livestock and the production of livestock products.

There are considerable fluctuations from time to time in the numbers of very small holdings, and it is very difficult to determine in some cases whether or not they are rural holdings within the definition. In addition, in the very dry parts, such as the far west of New South Wales and Queensland and the remoter parts of South Australia and Western Australia, there are large areas of marginal lands sporadically occupied for extensive grazing under short-term lease or other arrangement, and the areas so occupied tend to fluctuate with the seasons. Similarly, there are rugged areas in the mountain country of some States which are also occasionally occupied.

**RURAL HOLDINGS: NUMBER AND AREA, STATES AND TERRITORIES
1960-61 TO 1964-65**

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
NUMBER OF RURAL HOLDINGS									
1960-61	76,871	69,623	43,155	28,711	21,922	11,201	275	224	251,982
1961-62	76,949	69,866	43,287	28,886	22,082	11,117	284	217	252,688
1962-63	76,294	69,700	43,284	28,922	22,554	10,974	281	217	252,226
1963-64	77,339	69,775	43,183	28,711	22,770	10,949	299	214	253,240
1964-65	77,098	69,737	43,565	28,754	22,856	10,979	307	207	253,503

**TOTAL AREA OF RURAL HOLDINGS
(⁰000 acres)**

1960-61	172,697	37,934	373,995	156,456	247,737	6,510	161,099	374	1,156,802
1961-62	172,327	37,754	374,501	156,898	252,783	6,551	171,244	377	1,172,435
1962-63	172,038	37,709	376,788	156,697	262,660	6,422	164,955	376	1,177,645
1963-64	172,076	37,798	376,687	158,905	266,556	6,377	165,734	373	1,184,506
1964-65	172,148	37,844	377,010	156,955	268,553	6,420	171,482	358	1,190,770

Land utilization of rural holdings

The following table shows the purposes for which the land on the rural holdings referred to in the preceding paragraph was used.

**RURAL HOLDINGS: LAND UTILIZATION, 1960-61 TO 1964-65
(⁰000 acres)**

Year	Area used for crops(a)	Land lying fallow(b)	Area under sown grasses and clovers(c)	Balance of holdings (d)	Total area of holdings
1960-61	27,101	7,438	35,589	1,086,674	1,156,802
1961-62	27,907	8,049	39,063	1,097,416	1,172,435
1962-63	30,056	8,719	40,991	1,097,879	1,177,645
1963-64	29,948	8,510	44,211	1,101,837	1,184,506
1964-65—					
New South Wales	10,000	2,223	11,074	148,851	172,148
Victoria	5,019	2,484	14,830	15,511	37,844
Queensland	3,874	691	3,438	369,007	377,010
South Australia	5,831	1,231	5,673	144,220	156,955
Western Australia	7,289	1,757	10,427	249,080	268,553
Tasmania	227	79	1,610	4,504	6,420
Northern Territory	4	..	15	171,463	171,482
Australian Capital Territory	7	1	92	258	358
Australia	32,251	8,466	47,159	1,102,894	1,190,770

(a) Excludes (i) duplication on account of area double cropped, except for New South Wales and South Australia, and (ii) clovers and grasses cut for hay and seed which have been included in Area under sown grasses and clovers, and differs therefore from crop area figures shown later in this chapter. (b) Excludes short or summer fallow. (c) Includes paspalum. (d) Used for grazing, lying idle, etc.

Classification by size and type of activity

Some of the information obtained from the 1959-60 Agricultural and Pastoral Census was classified by size of principal characteristics (area of holdings, area of sown grasses and clovers, area of selected crops, and numbers of livestock). In addition, all holdings were classified according to type of activity. Tables showing this information, for statistical divisions and States, and an outline of the methods used have been published in a series of bulletins *Classification of Rural Holdings by Size and Type of Activity, 1959-60*. Similar information on size classification for each State was published in a series of bulletins for the year 1955-56.

Employment on rural holdings**Persons engaged**

The following table shows, for each State except Victoria, the recorded number of males working on rural holdings. Particulars for females are not available except for New South Wales. Additional particulars relating to the number of males employed in agriculture up to 1941-42 are shown in Year Book No. 36, page 852, and previous issues. Similar details for later years are not available.

MALES(a) ENGAGED ON RURAL HOLDINGS: STATES AND TERRITORIES
31 MARCH 1965

Males engaged	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.(b)	A.C.T.	Aust.
Permanent—									
Owners, lesses or share-farmers	63,100	(c)	44,546	23,136	20,569	7,651	211	158	n.a.
Relatives of owner, lessee or share-farmer over 14 years of age, not receiving wages or salary	2,690		2,958	1,207	1,232	20	15	5	
Employees, including managers and relatives working for wages or salary	28,776		18,619	8,247	8,502	4,075	645	162	
<i>Total permanent males</i>	94,566		66,123	32,590	30,303	11,746	871	325	
Temporary	22,198		10,206	10,984	2,797	5,993	1,323	27	
Total males	116,764		76,329	43,574	33,100	17,739	2,194	352	

(a) Details for females not available except for New South Wales. (b) Includes 1,125 male full-blood Aboriginals employed as temporary employees. (c) Not available; subject to investigation.

Information regarding the number of persons working full-time on rural holdings in Australia at 31 March of years to 1958 appears in Year Book No. 50, page 987, and in earlier Year Books. Data for subsequent years are the subject of investigation and are not available at this stage.

Salaries and wages paid

Particulars of salaries and wages paid to employees (including amounts paid to contractors) working full-time on rural holdings are shown below for the year 1964-65. Data for New South Wales and Victoria, and hence Australia, are not available.

EMPLOYEES ON RURAL HOLDINGS: SALARIES AND WAGES PAID(a)
STATES AND TERRITORIES, 1964-65
(\$'000)

Employees	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aus.
Permanent—Males . . .	(b)	(b)	33,152	13,492	15,474	7,034	1,302	432	n.a.
Females . . .			484			140	36		
Temporary(c)—Males . . .			49,114	9,952	3,702	694	150		
Females . . .			1,158	984	10				
Total			84,438	25,086	27,800	11,860	2,134	628	

(a) Includes value of keep. (b) Not available; subject to investigation. (c) Includes amounts paid to contractors.

Similar information for Australia for years up to 1957-58 is given in Year Book No. 50, page 988, and in earlier Year Books. Particulars for subsequent years are the subject of investigation and are not available at this stage.

Persons residing permanently on holdings

Particulars of persons (of all ages) residing permanently on rural holdings in each State and Territory at 31 March 1965, and throughout Australia for a series of years, are shown below.

PERSONS (OF ALL AGES) RESIDING PERMANENTLY ON RURAL HOLDINGS STATES AND TERRITORIES, 31 MARCH 1965

—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Males . . .	156,171	141,850	104,482	58,016	50,353	25,893	1,253	478	538,496
Females . . .	135,439	125,139	86,215	51,361	41,917	23,297	661	387	464,416
Total . . .	291,610	266,989	190,697	109,377	92,270	49,190	1,914	865	1,002,912

PERSONS (OF ALL AGES) RESIDING PERMANENTLY ON RURAL HOLDINGS AUSTRALIA, 31 MARCH 1961 TO 1965

—	31 March—				
	1961	1962	1963	1964	1965
Males . . .	547,594	544,709	540,893	541,394	538,496
Females . . .	467,539	465,238	464,048	465,990	464,416
Total . . .	1,015,133	1,009,947	1,004,941	1,007,384	1,002,912

Technical aspects of rural industry

Farm machinery on rural holdings

The history of the development of large-scale field crops and sown pastures in Australia is essentially also the history of the mechanization of the rural industries. This may be divided into four phases.

The first phase extended from initial settlement to the mid-nineteenth century, when agriculture was primarily local and non-commercial, and confined by hand methods to small areas and low production per farm worker.

The invention of an effective wheat stripper in South Australia in 1843 and the extension of its use into Victoria and New South Wales, however, greatly increased the area which could be harvested in a season. This initiated the second phase, which continued with the development of stump-jump implements in the 1870's and the scrub roller and mullenizer in the 1890's. These later developments made possible an extension of the wheat belt into the drier mallee lands of Victoria and South Australia. By the turn of the century machinery had thus been developed to conduct all cropping operations on an extensive basis.

The third major change in farm machinery followed the 1914-18 War, when tractor power became increasingly available in a variety of models and sizes. The increase in numbers of tractors on rural holdings and higher operating speeds led in turn to new and improved types of farm machinery drawn by tractors. These trends were interrupted by the economic depression of the 1930's.

After the 1939-45 War there was a widespread expansion of labour-saving machinery and devices in all sectors of rural industry. Clearing methods were extended with the bulldozer, log, chain, and hi-ball units, and cultivation was improved by means of large disc ploughs and disc harrows, and seeding and harvesting machinery. These methods were extended to crops for which methods involving greater use of manual labour had previously been employed. Milking machines

almost entirely replaced hand milking on dairy farms, and labour-saving machinery was introduced into farm and station development and maintenance operations. These operations included fencing, bulk transport of grain and fodder, pasture treatment, fodder conservation, and pasture improvement.

The tables following show data for the principal types of farm machinery on rural holdings in the several States and Territories at 31 March 1965 and throughout Australia for a series of years. A more detailed analysis of tractors on rural holdings according to horse-power, type of fuel used, and age of tractor was published in the Statistical Bulletin *Tractors on Rural Holdings—Australia*, 31 March 1963, issued on 11 May 1965.

**FARM MACHINERY ON RURAL HOLDINGS: STATES AND TERRITORIES
31 MARCH 1965**

Machinery	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Cultivating—									
Rotary hoes and rotary tillers—									
Self-contained power unit . . .	14,269	7,508	3,479	4,199	1,579	1,270	68	n.a.	(a) 40,195
Tractor-drawn . . .		4,249	n.a.	1,471	1,406	680	17		
Seeding and planting—									
Grain drills—									
Combine type . . .	27,528	19,442	12,468	15,617	13,496	1,392	..	65	90,008
Other types . . .	5,668	9,846	2,282	5,168	4,894	2,644	..	35	30,537
Maize and cotton planters . . .	7,627	756	6,736	..	74	..	23	4	15,220
Fertilizer distributors and broadcasters . . .	21,229	29,212	12,758	8,743	8,941	5,635	21	114	86,653
Harvesting—									
Grain and seed headers, strip- pers and harvesters . . .	19,582	14,177	7,220	12,659	11,185	717	..	28	65,568
Mowers—									
Power-driven . . .	21,653	29,824	9,494	7,980	7,382	4,940	54	83	81,410
Ground-drive . . .	4,526	4,878	4,804	994	752	1,176	7	16	17,153
Hay rakes—									
Side delivery . . .	11,897	15,215	3,587	5,033	4,683	2,336	25	56	42,832
Buck . . .	2,106	4,574	2,939	901	368	1,017	3	9	11,917
Dump . . .	3,593	3,944	6,002	986	961	1,060	3	15	16,564
Pick-up balers . . .	9,404	11,405	2,112	4,258	3,432	1,596	19	49	32,275
Potato diggers . . .	1,364	2,196	1,123	596	383	951	..	n.a.	(a) 6,613
Forage harvesters . . .	1,943	1,305	961	675	530	239	9	12	5,674
Peanut pickers . . .	5	..	310	..	..	..	n.a.	..	(a) 315
Corn pickers . . .	238	104	904	..	..	..	..	..	1,246
Other—									
Shearing machines (number of stands) . . .	70,747	41,112	19,359	28,844	21,517	4,493	16	305	186,393
Milking machines (number of units) . . .	42,209	101,994	44,074	19,135	10,055	13,806	23	93	231,389
Tractors—									
Wheel . . .	78,482	71,950	64,440	30,772	32,028	10,250	200	202	295,502
Crawler . . .		2,574		3,392		1,129	78	5	
Hammer mills . . .	6,290	4,949	7,027	1,765	1,639	440	..	18	22,128

(a) Incomplete.

FARM MACHINERY ON RURAL HOLDINGS: AUSTRALIA
31 MARCH 1961 TO 1965

Machinery	31 March—				
	1961	1962	1963	1964	1965
Cultivating(a)—					
Mouldboard ploughs	(b)	n.a.	n.a.	102,228	n.a.
Disc implements (including disc ploughs, disc cultivators, disc tillers and disc harrows)	(b)			229,818	
Tyre implements—					
Chisel ploughs, scarifiers, cultivators and rippers	(b)			175,928	
Tyre harrows (number of leaves) . .	n.a.			511,346	
Rotary hoes and rotary tillers . . .	(c) 36,896	(c) 38,868	(c) 38,896	(d) 37,561	(d) 40,195
Seeding and planting—					
Grain drills—					
Combine type	82,277	84,743	116,116	117,271	90,008
Other types	28,776	29,191			
Maize and cotton planters	(e) 15,567	(e) 16,050	(e) 15,509	(e) 14,635	15,220
Fertilizer distributors and broadcasters	80,654	82,820	83,499	84,320	86,653
Harvesting—					
Grain and seed headers, strippers and harvesters	63,158	64,891	65,628	64,697	65,568
Mowers(a)—					
Power-driven	n.a.	71,585	n.a.	n.a.	81,410
Ground drive		23,076			17,153
Hay rakes(a)—					
Side delivery	n.a.	35,777	n.a.	n.a.	42,832
Buck		12,347			11,917
Dump		20,267			16,564
Pick-up balers	25,264	26,647	28,725	30,411	32,275
Potato diggers(a)	n.a.	6,223	n.a.	n.a.	(f) 6,613
Forage harvesters		4,073	5,083	5,509	5,674
Peanut pickers(a)		255	n.a.	n.a.	(g) 315
Corn pickers(a)		1,264	n.a.	n.a.	1,246
Other—					
Shearing machines (number of stands)	172,697	177,579	178,805	180,370	186,393
Milking machines (number of units)	223,815	228,228	229,270	229,042	231,389
Tractors—					
Wheel	253,515	264,069	249,783	283,748	295,502
Crawler			21,277		
Hammer mills(a)	n.a.	17,508	n.a.	n.a.	22,128

(a) Details for all States are collected at triennial intervals only. (b) Particulars of ploughs only were collected in 1961 and details (excluding Northern Territory, which reported 154 ploughs of all types) are as follows: mouldboard ploughs, 103,403; disc ploughs (including disc cultivators), 173,205; ploughs of all other types (chisel, stubble, mulch, blade, etc.), 46,841. (c) Rotary hoes, all types. (d) Incomplete; excludes tractor-drawn rotary hoes and rotary tillers in Queensland. (e) Incomplete; particulars for Victoria not available. (f) Incomplete; particulars for the Australian Capital Territory not available. (g) Incomplete; particulars for the Northern Territory not available.

THE SOILS OF AUSTRALIA*

Nature and development of Australian soils

The soils of Australia constitute one of her greatest natural resources. Spread over a continent of nearly 3,000,000 square miles, of which approximately one-third lies within the tropics, they include soils developed on a wide range of rock types and under climatic conditions varying from the alpine zones of south-eastern Australia and Tasmania, through the Mediterranean zones of southern and south-western Australia and the wet and dry tropics of Queensland, to the very low rainfall areas of the centre.

* The following report on the soils of Australia was specially prepared for this issue of the Year Book by officers of the Soils Division of the Commonwealth Scientific and Industrial Research Organization. A soil map of Australia and illustrations are included on plates 47 to 51 between pages 896 and 897.

Australia provides two features which distinguish it from the continents of the Northern Hemisphere, where the scientific study of soil developed and where most investigations have been made. In the first place, the biological components of the environment in which Australian soils developed were widely different from those encountered elsewhere. The dominance of eucalypt and acacia species in the vegetation, the absence of modern herbivores from the native fauna, and the fact that the Aboriginal Australian did not cultivate the soil mean that, since British settlement commenced 177 years ago, the soils have been progressively exposed to biotic influences widely different from those under which they formed, and with which they were approximately in equilibrium. That the soils are changing or have changed under the impact of these new factors is often obvious, and the extent to which they are eroding shows that new equilibria have not yet been achieved.

In the second place, the great proportion of Europe and of North America were stripped of their former soils by the ice-sheets of the Pleistocene age, and soil formation started anew on fresh rock surfaces or on the deposits of fluvo-glacial transport about 10,000 years ago. By contrast, in Australia, apart from the very small areas that were glaciated in the south-east and Tasmania, or the much larger areas of Pleistocene and Recent alluvia, the soils have been formed on land surfaces that have been continually exposed to weathering, probably since the late Tertiary age. Ancient and deeply weathered profiles† are consequently a widely distributed feature of the Australian landscape. They dominate the soil pattern in many areas, and by virtue of the intense weathering to which they have been subjected they pose problems in plant nutrition that are not encountered in younger soils. The nature and distribution of the present day soils in many areas is consequently closely related to the geomorphology, which reflects the manner in which the land surface has been sculptured by erosion and deposition.

The result depends on whether the land surface maintains its ancient form, or whether it has subsequently been dissected. When little or no dissection is occurring, the soils of the old land surface remain, strongly leached and deeply weathered, and in the drier regions quite out of harmony with the present climate. In this category are the arid red earths of the centre, the soils of the Cobar peneplain in New South Wales and the broad divide north of Clermont in western Queensland.

Where dissection is occurring, the influence of the old land surface is most marked where weathering had produced a laterite. Laterite profiles have a massive or concretionary horizon‡ in which oxides of iron and aluminium are concentrated, overlying a kaolinized zone which is commonly bleached—the so-called pallid zone, which in turn overlies an horizon which is largely kaolinized, although still maintaining the form of the parent rock. If the old top soil is still present, it will be white or light-coloured sand or loam on acid rocks such as granite, or red, friable and granular clay on basic rocks such as basalt. Since the depth to unweathered rock commonly exceeds 70 feet and may reach 175 feet, the surface soil found at present depends largely on which horizon of the laterite has formed its base, and on the extent to which other horizons have contributed. As a result, a characteristic pattern of soils is associated with the lateritic residuals. Agricultural development of these soils has not been possible until comparatively recently because of extreme deficiencies of phosphorus, potassium and nitrogen, and widespread deficiencies of the minor elements copper, zinc, molybdenum, and manganese.

Agricultural development of Australian soils

In general, the productivity of Australian soils is largely determined by the moisture supply. On only about ten per cent of the continent is natural rainfall sufficient, or excessive, for plant growth for nine to twelve months of the year, and some of this falls or drains on to soils too steep and stony, or too elevated and cold. However, many swamps and fens and several areas of excessively wet podsollic and rendzina soils have been rendered highly productive by drainage and the use of appropriate fertilizers.

Where moisture is continuously or seasonally abundant, but not excessive, in the southern parts of the continent, productivity is governed largely by the almost universal need for phosphatic fertilizer. There is also a widespread need for sulphur, which has often been masked by the large content of gypsum present in the form of superphosphate that has been used. The need for potassium is increasing. In these regions the yields of crops and sown pastures are normally increased severalfold by the use of superphosphate, aided as necessary by trace elements. On several soils a large increase with the use of fertilizers is also obtained in plantations of *Pinus radiata* and other tree species.

Where similar moisture conditions occur in tropical and sub-tropical areas, as in coastal Queensland and northern New South Wales, the pattern of production is dominated by sugarcane, but sown pastures are increasing in importance. Here phosphatic, potassic and nitrogenous fertilizers are used, and yields are high. In areas of rather lower rainfall, cane production is assisted by irrigation.

† A section through the soil showing the different horizons (see ‡ below) or layers which extend downwards from the surface to the parent material.

‡ Plane of stratification assumed to have been once horizontal and continuous.

Where seasonal rainfall is of shorter duration and not so reliable, as in much of the wheat-growing area, the rhythm of agricultural production is synchronized with this. In general, yields of crops and the carrying capacity of the associated pastures in the rotation are dependent on the use of superphosphate, except in some areas of black earths in southern Queensland and northern New South Wales.

Because of low and unreliable rainfall, no arable agriculture or sown pasture production is possible over much the greater part of Australia. In these arid to semi-arid regions pastoral activities at low carrying capacity are all that can be expected. Production is so limited by low soil moisture that there would appear to be no economic place for fertilizers. The surface and underground water resources of the area are so low or so saline that little development of irrigation is possible.

Types of Australian soils

Stony and shallow soils

A large part of the Northern Territory and of the northern part of Western Australia, exceeding 400,000 square miles in area, is covered by rocky country almost devoid of soil. Such soil as occurs is usually shallow, leached and mildly acid, and of generally low fertility. It is probably incapable of development and provides only sparse grazing for cattle.

Soils of the alpine and perhumid zones

These soils include the high moor peats and alpine humus soils of the Australian Alps and Tasmanian highlands and the peaty podsoles of the cold perhumid western region of Tasmania. The characteristics common to them are highly organic surface horizons, extreme acidity, and excessive moisture supply. No form of arable agriculture is undertaken, not only because of the above-mentioned properties, but also because of their unsuitable climate and rugged terrain. To a large extent the soils are mixed with much exposed rock and are themselves often excessively stony.

Of these soils the alpine humus soils are forested in part, and some timber is extracted. However, the commonest form of land use on all of them has been the seasonal grazing of sheep and cattle, stock being moved on to them in late spring and removed to lower and more hospitable areas in autumn. Because of their abundant rainfall and seasonal snow cover both the Australian Alps and the Tasmanian highlands have progressively become the scene of major engineering enterprises connected with water storage. The objectives are the development of electric power and the regulated supply of water for irrigation of lands outside the mountain regions themselves. These projects have brought a re-appraisal of the long-term value of seasonal grazing and its effects on the alpine vegetation. These arise from ancillary practices such as burning to stimulate new growth of greater palatability to stock. As a consequence there has been some erosion damage to the landscape. Engineering works themselves, such as roads and channels, have also brought problems of landscape stability in their train. Techniques to combat these are being developed. Meanwhile there is a trend towards the stricter control or elimination of the transhumance, or seasonal moving, of stock in an effort to conserve the alpine areas for their most valuable long-term national use, the conservation and regulation of water.

Soils of the humid zones

Leached soils. Under this heading are grouped the acid soils of the moderately humid regions where, because of perennially or seasonally abundant moisture, sown pastures and arable agriculture are widespread. These soils also carry the bulk of the useful natural forests of Australia and include the majority of the areas devoted to plantations of exotic and indigenous species. The *acid swamp soils* with their more or less peaty surfaces, although restricted in area, are widely exploited with the aid of artificial drainage. Together with much smaller areas of neutral to alkaline fen peats, they are devoted mainly to sown pastures and vegetable production. They reach their highest level of productivity in the drained and irrigated swamps of the lower Murray Valley, where carrying capacity exceeds a milking cow to the acre.

Podsoles, usually sandy, have a bleached subsoil overlying an organic and ferruginous pan. This pan may be so indurated that root penetration is difficult and temporary water-tables form above it. The most extensive areas of these soils are on the coastal plains of south-western Australia, southern Queensland, New South Wales, and the large sand islands of the southern Queensland coast. Their coarse texture and poverty in all nutrients has caused them to be neglected until recently. In Queensland, with heavy use of fertilizers, it is possible to develop good pastures. In southern Australia plantations of the exotic trees *Pinus radiata* and *Pinus pinaster* give responses to zinc, phosphorus and nitrogen.

The *podsollic soils*, formed on finer textured or less siliceous rocks, have a clay subsoil beneath sandy to loam surface soils. These soils are more widespread than the podsolis, and are generally less acid. Practically universal responses to superphosphate, and very frequent responses to one or more of the trace elements, copper, zinc, molybdenum, and boron, have been obtained. The most extensive use of the podsollic soils has been for pastures based on subterranean clover, usually top-dressed annually with superphosphate. This form of land use has increased stock carrying capacity severalfold and built up soil fertility to the stage where increasing use is being made of arable crops, such as potatoes and cereals, to take advantage of the enhanced nitrogen status. After a protracted period of use, the podsollic soils exhibit an uneven incidence of potassium deficiency, but the correction of this is straightforward once it has been recognized. These soils are used for horticultural purposes, particularly for pome fruits, and for forest plantations, especially of *Pinus radiata*. In more northerly areas some sugar cane is grown on them.

Krasnozems, deep friable red clay soils, often strongly acid, are found mainly on the volcanic rocks which have a scattered distribution in the eastern States. The krasnozems were originally densely forested, but, with little proper exploitation of their timber resources, these soils were rapidly cleared and converted to intensive forms of agriculture ranging from perennial pastures and temperate fodder crops, vegetable and grain crops in southern areas, to sugar, maize, peanuts, and some sown pastures in tropical and sub-tropical localities. The initial fertility of the soils has declined rather rapidly, and they have a restricted response to superphosphate due to a high rate of reversion of phosphorus to less available forms. They respond widely to molybdenum, and, over increasing areas, to potassium. Despite their limitations, however, including a somewhat difficult fertilizer economy, these soils retain their position amongst the most productive in Australia.

Red earths and yellow earths are associated with old land surfaces, sometimes forming divides, sometimes prominent mesas and sometimes broad terraces. They have brown, grey or red brown surface horizons merging into red or yellow, massive, but porous, subsoils, mainly acid at the surface and normally becoming more acid with depth. They are of low inherent fertility, markedly deficient in phosphorus, nitrogen and trace elements, but responding well to good management. Where they are located favourably in relation to markets, a wide range of crops is grown on them, e.g. tropical fruit and vegetables near Brisbane, and sugar cane in coastal country.

The *chocolate soils* occur mainly on basalt on the tablelands of New South Wales. They are brown soils with a friable clay surface horizon overlying a tighter clay subsoil, with floaters of parent rock throughout. Only moderately acid on the surface and becoming neutral with depth, they present few problems, respond readily to fertilizers, and are intensively farmed for perennial pastures and such vegetable crops as potatoes and peas.

Soils on calcareous materials. Shallow, neutral to alkaline soils resting on limestones can be either red—terra rossas—or black—rendzinas. The terra rossas are variable in texture, but the rendzinas are generally well structured clay soils, some having seasonally rising and falling groundwater.

The only extensive occurrence of rendzinas is in the south-east of South Australia, where they occupy the wet calcareous floors of long swales between ridges of ancient stranded coastal dunes. These soils have been extensively drained and developed, and are now mostly devoted to pastures. They respond to superphosphate and, variably, to the trace elements copper, zinc and manganese.

Terra rossas, which are well drained shallow soils, are often so stony or intruded by so much outcropping limestone that their usefulness is frequently very limited. The largest aggregate area is on the better drained positions in association with rendzinas in the south-east of South Australia. They are most frequently used for pastures, either natural or sown, and, where deeper, for vines and stone fruits.

Soils of the seasonally humid zones

In these climatic zones the rainfall is sharply seasonal, with a winter incidence in the south and a summer incidence in the north. In the latter it is also erratic. The soils fall into five main groups, the red-brown earths, black earths (or chernozems), solodic soils, red and yellow earths, and lateritic podsollic soils.

The *red-brown earths* have developed commonly on slates, shales and granites and on areas of old alluvium that are now above the level of modern floods. They have brown to grey brown, loam to sandy-loam, surface soil overlying a reddish-brown clay subsoil. The surface soil is mildly acid, but the acidity diminishes with depth and concretions of calcium carbonate are present in the deeper layers. The organic matter is concentrated in the surface soil, and where this has been lost by erosion fertility falls. The soils are well supplied with potassium, calcium and magnesium, but are always deficient in phosphorus and nitrogen. They are widely used for cereal production in the winter rainfall regions of southern Australia, and in New South Wales and Victoria have been extensively irrigated for pasture and horticultural production.

The *black earths* or *chernozems* are black or dark brown in colour and clay in texture, with a good granular structure in the surface soil which becomes cloddy and massive in the deeper layers. They are usually slightly acid to neutral in the surface, becoming neutral to alkaline with depth, with an horizon of calcium carbonate concretions at varying levels from eight inches to three feet below the surface. These occur on either side of the Eastern Divide from central Queensland to Tasmania. Those in northern New South Wales and Queensland have areas where the surface soil is alkaline. All Australian soils in this group differ from their counterparts in Europe and north America in containing less organic matter, which falls with diminishing rainfall and increasing temperatures, and they are usually heavier in texture. On drying out these soils crack widely and deeply, and on wetting become very sticky. Prior to cultivation they show gilgai (see page 878) micro-relief. These are the most fertile arable soils in Australia, and are unique in the high levels of available phosphate they contain. They are also relatively rich in nitrogen, and, unlike the red-brown earths, the organic matter is distributed through the top two or three feet of soil. The addition of sulphur as fertilizer is sometimes necessary, and responses to zinc are obtained. Where they are formed on alluvium or on parent materials low in phosphorus they may also respond to phosphate. Rotations in the northern summer rainfall areas are more varied than in the south, and include wheat, sorghum and lucerne, linseed, safflower, millet, and maize. Many farmers grow wheat continuously for several years, using a short summer fallow to conserve the summer rainfall for the winter growing crop. Only a small part of these soils is irrigated, but this includes the high producing cotton growing areas irrigated from the Namoi River. Arable development of these soils was originally restricted because cultivation is only possible over a very narrow moisture range, and consequently only became an economic possibility with the use of tractors sufficiently powerful to complete the necessary cultivation in the limited time available.

The *euchrozems* of northern New South Wales and Queensland are formed on the deeply weathered lower horizons of ancient laterites formed on basalt. They have a friable dark brownish red clay loam at the surface, merging into blocky structured orange to orange-yellow clay, with decomposing basalt at depths of four feet or deeper. They differ from the chernozems mainly in containing more free ferric oxide, and they do not crack so widely. Agriculturally their properties are similar to the chernozems but they are generally lower in available phosphate, although they respond well to superphosphate.

The *solodic* and *solodized-solonetz* soils occur in all States and are particularly extensive in the sub-coastal regions of Queensland, where they form the bulk of the spear-grass country. They have commonly formed on old alluvial deposits and on a wide range of rocks. The soils have a grey sandy to loamy surface, moderately to strongly acid in reaction, sharply differentiated from a mottled yellow, brown, orange, and grey dense clay subsoil. The subsoil may exhibit a strong prismatic structure with well-marked flat topped columns at the junction with the surface soil. Usually in the lower horizons the acidity falls, and in some cases calcareous concretions are present. In their natural state these soils are very infertile, and are deficient in nitrogen and phosphorus as well as trace elements. Although commonly containing concretionary calcium carbonate in the deep subsoil, the calcium levels of the surface soil are often so low as to be deficient for such shallow rooting plants as the introduced pasture species. Deficiencies of potassium occur in many areas, and molybdenum deficiency is widespread. Their development, which has so far only been undertaken in limited areas, requires the rectification of these deficiencies and the introduction of a suitable legume.

The *lateritic podsolic* soils have light coloured sandy horizons over a concretionary ironstone horizon over mottled or white leached clay. They are mildly to strongly acid throughout and are strongly weathered and leached. They usually occur on ancient lateritic land surfaces. Extensive areas of these soils occur in north Australia, in south-western Western Australia and in South Australia. In the natural state they carry heath vegetation and low mallee. They are extremely deficient in phosphorus and nitrogen, as well as in trace elements. However, clearing costs are low, and in the winter rainfall areas of Western Australia very considerable areas of these soils are now being developed for improved pastures, with blue lupin or subterranean clover as the pioneer crop.

Soils of the semi-arid zones

The major soils of the semi-arid zones include the highly calcareous solonized brown soils restricted to southern Australia, the massive structured, variably calcareous and gypseous grey and brown soils of heavy texture, and the red earths of the old land surfaces.

The *solonized brown* soils lie largely in a zone of low rainfall, approximately 9 to 15 inches per annum of unreliable, winter incidence. They are deep sandy to shallow loamy soils overlying deep rubbly and powdery calcareous clay subsoils, and are neutral to alkaline at the surface, becoming more alkaline with depth. Their landscape is frequently characterized by a parallel east-west dune system. These soils make up a large part of the low yielding wheat lands of southern Australia. They are farmed on a wide rotation, comprising volunteer pasture-fallow-wheat, in which superphosphate is used solely with the wheat. Sheep graze the pastures. These

soils, especially the sands, are very susceptible to wind erosion, and much effort is now devoted to the stabilization of the once cleared and cultivated dunes. The common plant for reclamation is cereal rye. Where the solonized brown soils lie adjacent to the Murray River they are widely irrigated, especially for horticultural production, principally of grapes and citrus fruits. Under skilled management they are very productive, but are liable to rising groundwater and secondary salinity problems where drainage is inadequate.

The *grey and brown soils of heavy texture* are uniform clays, ranging from grey to brown and becoming mottled with depth. They are slightly acid, neutral or slightly alkaline at the surface, becoming moderately to strongly alkaline with depth. Gypsum is often present in the subsoils, and excessive salinity may occasionally be a problem. They occur on alluvial deposits of Pleistocene and Recent age as well as on contemporary alluvium, and on sedimentary rocks of varying ages, in a great arc from the south-east of South Australia through eastern Australia to the Barkly Tableland in the Northern Territory, with smaller outliers in the Kimberleys. In Queensland and northern New South Wales considerable areas carry a tall scrub of brigalow (*Acacia harpophylla*). Where this occurs on old alluvium more than half the soils show the unusual feature of having a neutral to alkaline surface soil overlying a strongly acid subsoil. They are generally of moderate fertility, but the phosphorus contents are very variable. On the wetter fringe, as in the Wimmera district of Victoria and the Namoi and Macquarie regions of New South Wales, these soils are used for wheat growing. In Queensland, with moisture conservation by bare fallowing, a wide range of summer and winter crops can be grown. Elsewhere they make up a high proportion of the better natural pasture lands used for cattle and sheep grazing. Where they occur in the irrigation areas of the Murrumbidgee and Murray rivers in New South Wales and Victoria their low infiltration rate poses some difficulties in the irrigation of pastures but makes them particularly suitable for rice. Most of the soils are gilgaied (*see below*) to some degree, and strongly so on the wetter fringes.

Red earths associated with old land surfaces are widely distributed throughout the semi-arid areas, and constitute a major component of the wool-producing lands of south-west Queensland and north-west New South Wales, as well as larger areas of the Northern Territory. They are usually covered with scrub and are practically unused for agriculture. They are generally devoted to sheep and cattle grazing.

Soils of the arid zones

The soils of the arid zones fall into three broad categories:

- (a) those that are coarse-textured enough to be moved by wind action—the desert sandhills and desert sand plains;
- (b) those that resist wind action—the arid red earths, the desert loams and the stony desert soils; and
- (c) the calcareous desert soils of the Nullarbor Plain.

The *desert sandhill country* is covered by long parallel sand ridges separated by inter-dune corridors ranging from 25 feet to a half a mile wide. In general the whole surface from dune crest to swale is covered by deep sandy soils, mildly acid throughout, usually bright red brown. The desert sandplains have similar soils on a very gently undulating landscape. These areas carry spinifex and some shrubs and are mainly useless for grazing. At slightly higher rainfalls on the South Australian-New South Wales border the inter-dune corridors are covered with grey clay or loam of varying depth and covered with roughly octagonal cracks in their normal dry state. After the occasional rain storms these areas are briefly flooded. The dune corridors carry grass, but over considerable areas the flanks of the dunes carry a scrub of drought resistant shrubs with mulga (*Acacia aneura*) as the principal component.

The finer textured soils, the *arid red earths*, the *desert loams* and the *stony desert soils* differ in texture from each other and in the degree of profile development, but are all red-brown to brown in colour. They make up a large proportion of the country utilized for grazing. The vegetation includes grasses and edible shrubs such as mulga on the arid red earths and shrub steppe on the desert loams. The stony desert soils carry a layer of stones on their surface and are almost treeless.

The *calcareous desert soils* are shallow powdery calcareous soils, sedentary on limestone. They are covered by a shrub steppe and are particularly susceptible to wind and water erosion, especially where their vegetative cover has been reduced by overgrazing.

The gilgai phenomena

This feature, which is widely developed throughout the heavier soils, consists of small-scale undulations of the land, the alternate hummocks and hollows of which show some degree of regularity. They have been called variously 'gilgai', 'crab-hole', 'melon-hole', and 'Bay of Biscay country'. Considerable differences in magnitude and form of the undulations occur, and since the different names are not applied consistently to any one form, the term 'gilgai' is now used for

all manifestations. They all show a characteristic swelling pattern on wetting, the subsoil swelling more than the topsoil. Originally described in Australia, this phenomena has subsequently been recognized in many other countries where a suitable combination of soil and climate exists.

Soil improvement and conservation

Fertilizers

In the early days of settlement in Australia the principles of scientific cultivation were little understood. It was common for the land to be cropped continuously until the natural fertility was almost exhausted. More scientific methods have been adopted in recent decades, much of the improvement in this regard being due to the assistance and guidance offered to farmers by various State and Commonwealth departments and authorities.

Fertilizer is generally applied to pastures at the time of sowing, and periodical (usually annual) top-dressings are carried out afterwards to keep the pastures in good condition. The introduction of the modern seed-drill, acting also as a fertilizer distributor, has greatly facilitated the use of artificial manures, and much land formerly regarded as useless for cultivation has now been brought into production. With the rapid increase in the area of sown pastures, particularly since the 1939-45 War, large quantities of artificial fertilizers have been used. In addition, increasing areas of native pastures have been top-dressed. The use of aircraft for the distribution of fertilizers has increased greatly in recent years (*see* page 880) and, in particular, has enabled the fertilizing of some areas which would otherwise be inaccessible. In 1964-65 pastures (sown and native) accounted for over 60 per cent of both the total area fertilized and the total quantity of fertilizer used.

The Australian output of prepared fertilizers is derived chiefly from imported rock phosphate. Complete information regarding local production of fertilizers is not available. The number of firms engaged in the manufacture of chemical fertilizers in Australia for the year 1964-65 was 48 made up as follows: New South Wales, 12; Victoria, 6; Queensland, 5; South Australia, 9; Western Australia, 8; and Tasmania, 8. The production of superphosphate in Australia during 1964-65 amounted to 3,702,960 tons.

Information regarding the area treated with artificial fertilizers and the quantity of artificial fertilizers (superphosphate, bonedust, nitrates, etc.) used in each State during the 1964-65 season is given in the following table.

AREA FERTILIZED AND QUANTITY OF ARTIFICIAL FERTILIZERS USED
STATES AND TERRITORIES, 1964-65

State or Territory	Crops			Pastures			Total		
	Area fertilized	Super-phosphate used	Other artificial fertilizers used	Area fertilized	Super-phosphate used	Other artificial fertilizers used	Area fertilized	Super-phosphate used	Other artificial fertilizers used
	'000 acres	tons	tons	'000 acres	tons	tons	'000 acres	tons	tons
New South Wales . . .	5,222	194,326	41,039	10,967	595,068	7,526	16,189	789,394	48,565
Victoria . . .	4,703	200,843	46,658	11,496	695,876	44,729	16,199	896,719	91,387
Queensland . . .	821	21,166	168,273	88	7,497	1,760	909	28,663	170,033
South Australia . . .	4,775	241,817	12,452	4,714	272,954	1,604	9,489	514,771	14,056
Western Australia . . .	7,271	357,513	27,831	8,888	453,205	5,906	16,159	810,718	33,737
Tasmania . . .	218	21,184	9,708	1,380	106,287	5,481	1,598	127,471	15,189
Northern Territory . . .	2	92	71	3	100	44	5	192	115
Australian Capital Territory . . .	5	280	87	91	4,836	22	96	5,116	109
Australia . . .	23,017	1,037,221	306,119	37,627	2,135,823	67,072	60,644	3,173,044	373,191

Particulars of the quantity of artificial fertilizers used in each State and Territory during each of the seasons 1960-61 to 1964-65 are shown in the next table. These details include the quantity used for the top-dressing of pasture lands.

**QUANTITY OF ARTIFICIAL FERTILIZERS USED: STATES AND TERRITORIES
1960-61 TO 1964-65
(Tons)**

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1960-61 . . .	497,492	745,522	108,220	399,091	621,435	107,027	209	3,798	2,482,794
1961-62 . . .	512,201	777,429	126,301	404,233	649,323	112,785	216	4,492	2,586,380
1962-63 . . .	576,561	822,488	135,896	430,561	713,067	124,523	226	4,501	2,807,323
1963-64 . . .	683,968	880,941	183,326	465,583	720,943	141,507	305	5,213	3,081,786
1964-65 . . .	837,959	988,106	198,696	528,827	844,455	142,660	307	5,225	3,546,235

The chief sources of Australia's supplies of rock phosphate are Nauru, Christmas Island (Indian Ocean) and the Gilbert and Ellice Islands. Sodium nitrate is obtained chiefly from Chile.

The imports of artificial fertilizers during the five years ended 1964-65 are shown in the following table.

ARTIFICIAL FERTILIZERS: IMPORTS INTO AUSTRALIA, 1960-61 TO 1964-65

Fertilizer	1960-61	1961-62	1962-63	1963-64	1964-65
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**QUANTITY
(Tons)**

Ammonium fertilizers . . .	110	18,636	37,458	117,592	71,406
Potassium fertilizers . . .	52,212	74,789	58,327	96,724	109,024
Rock phosphate . . .	1,647,928	1,950,834	1,694,916	1,989,413	2,517,318
Sodium nitrate . . .	5,670	7,709	7,193	9,673	11,038
Other . . .	26,361	37,888	35,001	25,888	44,127

**VALUE
(\$A'000 f.o.b.)**

Ammonium fertilizers . . .	5	762	1,244	3,547	2,848
Potassium fertilizers . . .	1,512	2,555	1,847	2,856	3,441
Rock phosphate . . .	8,631	9,949	9,875	12,487	17,978
Sodium nitrate . . .	267	310	336	478	443
Other . . .	1,492	2,096	1,842	1,479	2,816
Total . . .	11,907	15,672	15,144	20,847	27,526

Exports of fertilizers (practically all of which were manufactured locally) amounted to 2,040 tons valued at \$176,682 in 1964-65 compared with 4,794 tons valued at \$269,190 in 1963-64.

Aerial agriculture

During recent years increasing use has been made of aircraft for top-dressing and seeding, for spraying and dusting of crops and pastures, and for pest and vermin extermination.

For 1956-57 (the first year for which data are available) the total area treated was 1,466,000 acres; in 1964-65 the total was 16,640,000 acres, more than eleven times as great. The following table shows details of area treated and materials used for each State for the five years ended 31 March 1965.

AERIAL AGRICULTURE: OPERATIONS, STATES
1960-61 TO 1964-65

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1960-61 . . . acres	4,134,327	806,592	413,498	222,877	581,871	80,359	6,239,524
1961-62 . . . "	4,687,232	972,269	231,220	279,541	908,508	84,000	7,162,770
1962-63 . . . "	5,480,999	923,776	539,714	470,476	1,262,346	86,150	8,763,461
1963-64 . . . "	8,083,748	1,512,819	497,518	1,181,349	1,424,479	87,786	12,787,699
1964-65—							
Top-dressing and seeding—							
Area treated with—							
Superphosphate alone . . "	9,223,062	1,245,050	135,620	1,140,575	590,191	206,405	12,540,903
Seed alone . . . "	554,969	49,509	425,165	40,577	1,300	8,150	1,079,670
Superphosphate and seed together . . . "	126,925	133,400	2,290	..	92,151	..	354,766
Gypsum "	313,811	..	..	..	..	..	313,811
Other "	102,172	3,850	1,446	..	36,311	..	143,779
Total area treated, top-dressing, etc.(a) . .	10,046,578	1,429,159	563,581	1,181,152	711,498	214,555	14,146,523
Materials used—							
Superphosphate . . tons	446,362	92,213	7,502	54,454	38,506	17,057	656,094
Seed on—							
Pasture . . . lb.	1,710,812	162,140	628,643	575,103	172,169	39,950	3,288,817
Other . . . . "	..	..	230	172,900	5,000	..	178,130
Spraying and dusting—							
Area treated—							
Pasture . . . acres	28,604	56,179	1,543	80,064	10,499	364	177,253
Crops "	651,929	328,823	223,509	94,525	917,565	310	2,216,661
Other "	..	1,100	13,512	7,140	150	25	21,927
Total area treated, spraying, etc. . .	680,533	386,102	238,564	181,729	928,214	699	2,415,841
Grand total, area treated(a) . . . "	10,771,791	1,896,461	760,505	1,362,881	1,633,312	215,254	16,640,204
	(b)	(c)					(d)

(a) Where an area has been treated with a mixture of materials or more than one material, the area treated is included in the line relating to each of the various materials but is counted in the total once only.
(b) Includes 62,380 acres baited for rabbit destruction, etc. (c) Includes 81,200 acres baited for rabbit destruction, etc. (d) Includes 143,580 acres baited for rabbit destruction, etc.

NOTE. The information contained in this table was collected by the Department of Civil Aviation.

Pasture improvement

An article on pasture improvement, which includes notes on indigenous and introduced species of grasses and which traces the development of pasture research in Australia, appears on pages 1001-2 of Year Book No. 49.

Soil conservation

Year Book No. 49 contains an article (pages 1003-4) on soil conservation which deals with the following matters: land use and soil erosion, agents of erosion, prevention and control, and the activities of various Commonwealth and State authorities which promote and co-ordinate research into the problems of soil erosion and the initiation of preventive measures.

AGRICULTURAL PRODUCTION

In general, statistics in this chapter relating to agricultural production are derived from 'census' returns supplied by approximately 250,000 farmers who utilize one acre or more of land for agricultural or pastoral purposes. The latest figures available are those for the year 1964-65. The returns are collected on a substantially uniform basis in all States at 31 March each year, and relate mainly to crops sown in the previous twelve months. Where harvests are not completed by March (e.g. potatoes), provision is made in some States for a special collection after the harvest is completed and in others for the inclusion of the total estimated yield expected from the complete harvest. In cases where additional data are available from marketing authorities or other sources these are used in conjunction with the 'census' returns. The statistics published in this chapter are therefore shown in 'agricultural' years. For most purposes there will be little error involved in considering them as applying to years ended 30 June.

For more detailed information on period covered and details of the weights and measures used in recording production of agricultural commodities see introductory notes to the bulletin *Rural Industries*.

Progress, assistance and control

Early development

The coastal districts of southern Australia are characterized to a large degree by leached soils of low fertility, with limited areas suitable for intensive crop cultivation. This, combined with an unfamiliar climate and problems associated with the clearance of scrub-land, severely checked early attempts to establish crops. A brief reference to these attempts at cultivation by the first settlers in New South Wales and to the discovery of suitable agricultural land on the Parramatta and Hawkesbury Rivers prior to the year 1813 and west of the Blue Mountains thereafter is contained in early issues of the Year Book. (See No. 22, page 670.)

In an *Account of Live Stock and Ground under Crop in New South Wales, 19th August, 1797* Governor Hunter gives the acreage of crops as follows: wheat, 3,361 acres; maize, 1,527 acres; barley, 26 acres; potatoes, 11 acres; and vines, 8 acres. The following details of crops were collected in 1808: wheat, 6,874 acres; maize, 3,389 acres; barley, 544 acres; oats, 92 acres; peas and beans, 100 acres; potatoes, 301 acres; turnips, 13 acres; orchards, 546 acres; and flax and hemp, 37 acres.

By the year 1850 the area of crops had increased to 491,000 acres, of which 198,000 acres were cultivated in what is now the State of New South Wales and 169,000 acres in Tasmania. At the end of 1850 the area under cultivation in Victoria, which was then the Port Phillip District of New South Wales, was 52,190 acres. The bulk of the arable land in this part of the colony was devoted to the extensive grazing of sheep.

The gold discoveries of 1851 (at Bathurst in New South Wales and later at Ballarat and Bendigo in Victoria) had at first a very disturbing effect on agricultural progress. The area of crops declined from 491,000 acres in 1850 to 458,000 acres in 1854, as landowners and rural labourers joined in the various gold rushes. The demand for agricultural products occasioned by the large influx of population was, however, soon reflected in the increased area cultivated, for at the end of 1858 the land under crop in Australia exceeded a million acres. There was still a shortage of rural labour, and the increased acreage was due largely to the increasing mechanization of crop operations.

Progress of cultivation

The following table shows the area of crops in each of the States and Territories of Australia at ten-yearly intervals since 1860-61 and during each of the ten seasons 1955-56 to 1964-65. Plate 52 in this chapter shows the area of crops in Australia from 1900-01 onward.

AREA OF CROPS: STATES AND TERRITORIES, 1860-61 TO 1964-65
('000 acres)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1860-61 . .	246	387	4	359	25	153	..	..	1,174
1870-71 . .	385	693	52	802	55	157	..	..	2,144
1880-81 . .	606	1,549	114	2,087	64	141	..	..	4,561
1890-91 . .	853	2,032	225	2,093	70	157	..	..	5,430
1900-01 . .	2,447	3,114	458	2,370	201	224	..	..	8,814
1910-11 . .	3,386	3,952	667	2,747	855	287	..	..	11,894
1920-21 . .	4,465	4,490	780	3,231	1,805	297	..	2	15,070
1930-31 . .	6,811	6,716	1,144	5,426	4,792	268	2	5	25,164
1940-41 . .	6,375	4,467	1,734	4,255	4,027	254	..	6	21,118
1950-51 . .	4,761	4,537	2,077	3,812	4,650	290	n.a.	6	20,133
1955-56 . .	5,660	4,812	2,604	4,220	5,342	327	1	7	22,973
1956-57 . .	3,789	3,904	2,469	4,273	5,233	288	1	5	19,962
1957-58 . .	5,000	4,431	2,600	4,233	5,615	292	1	5	22,177
1958-59 . .	6,820	5,040	2,852	4,436	6,135	339	1	8	25,631
1959-60 . .	7,137	4,817	2,926	4,400	6,495	322	1	7	26,105
1960-61 . .	8,044	5,838	3,057	5,399	6,871	357	2	8	29,576
1961-62 . .	8,288	5,626	3,216	5,024	7,112	364	2	7	29,639
1962-63 . .	8,903	6,318	3,490	5,495	7,482	395	2	7	32,092
1963-64 . .	8,997	6,102	3,665	5,975	6,915	380	3	8	32,045
1964-65 . .	10,334	6,477	3,967	5,965	7,505	404	4	9	34,665

The progress of agriculture was practically uninterrupted from 1860–61 to 1915–16, when, as the result of a special effort to increase wheat production during the 1914–18 War, 18.5 million acres were cultivated in Australia. There was a temporary setback in later war years, but after the end of the war the area continued to expand and increased steadily to the record area of 25.2 million acres in 1930–31. In the following years the slump in wheat prices seriously depressed incomes in the agricultural industry, and the area of crops decreased to just under 20 million acres in 1935–36.

By 1938–39 the industry was recovering from the depression, and the total area under cultivation reached the high level of 23.5 million acres. Thereafter, as a result of war-time manpower shortages and shipping difficulties, the area declined to less than 16 million acres in 1943–44. After that year production gradually increased again until, in 1947–48, 22.5 million acres were sown to crops. This upward trend was reversed after 1948–49, largely because many primary producers transferred from wheat to wool production as a result of the high prices of wool. After 1951–52, however, when the area sown was 20.0 million acres, the area under crops increased steadily except for 1956–57, when excessively wet conditions caused reductions in the area sown to wheat. Subsequent to that year the area of all crops has shown an upward trend (except for a slight decrease in 1963–64), and in 1964–65 a record level of 34.7 million acres was reached. As the area under wheat in Australia constitutes a large proportion of the total area cropped (51 per cent during the five years ended 1964–65), fluctuations in the former have been largely responsible for year to year variation in total crop area.

The Australian Agricultural Council

The influence of governmental and semi-governmental authorities on Australian rural industry is most apparent in the fields of guaranteed prices, subsidies and controlled marketing. Many of these aspects of intervention at the national level take place indirectly through the Australian Agricultural Council. This is a permanent organization which was formed following a conference of Commonwealth and State Ministers on agricultural and marketing matters, held at Canberra in December 1934. The Council consists of the Commonwealth Ministers for Primary Industry and Territories and the State Ministers of Agriculture, with power to co-opt the services of other Commonwealth and State Ministers as required. The principal functions of the Council are: the promotion of the welfare and development of agricultural industries generally; the exchange of information on agricultural production and marketing; the improvement of the quality of agricultural products and the maintenance of high grade standards; to ensure, as far as possible, balance between production and available markets; and organized marketing.

In addition, a permanent Standing Committee on Agriculture was formed to advise the Council, to secure co-operation and co-ordination in agricultural research, to advise State and Commonwealth Governments on the initiation and development of agricultural research, and to secure co-operation between all Governments in respect of quarantine measures against pests and diseases of plants and animals.

The Standing Committee on Agriculture comprises the permanent heads of the State Departments of Agriculture, the Secretary, Department of Primary Industry, and a representative each from the Commonwealth Departments of the Treasury, Health, Trade and Industry, and Territories, and from the Commonwealth Scientific and Industrial Research Organization.

Bounties paid to producers

Direct financial assistance to primary producers by the Commonwealth Government takes the form of bounties, subsidies and other financial assistance. One of the most important is the Cotton Bounty. The *Cotton Bounty Act* 1951–1958 providing for payment of a bounty on seed cotton of a grade higher than 'strict good ordinary' expired on 31 December 1963. Under the *Raw Cotton Bounty Act* 1963 which came into effect from 1 January 1964 to operate for a period of five years, the Commonwealth will pay a bounty on raw cotton produced and sold for use in Australia. The level of bounty is 13.437 cents per lb. for Middling 1-in. White raw cotton with premiums and discounts for grades and staple lengths above and below Middling 1-in. White. There is a ceiling on bounty payments of \$4,000,000 in any one year.

Other financial assistance

Other forms of assistance to producers include payments for cattle tick control, the Commonwealth Dairy Industry Extension Grant, Commonwealth Extension Services Grant, flood, drought and bush fire relief, fisheries research, and farm mechanization research.

Over recent years legislative research schemes, financed by matching contributions from the Commonwealth and industry and/or States, have been initiated in regard to wheat, wool, tobacco, dairy produce, beef cattle, and wine. Non-legislative schemes, on a similar financial basis, have

been operative in relation to brown rot, Australian plague locusts, tractor testing, apple and pear spray residue research, aerial seeding research, barley research, banana research, and fruit fly research. For further information on these matters, *see* pages 763-71, 773-4 and 781-2.

Agricultural training and research

Agricultural colleges have been established in all States except Tasmania. The primary function of these colleges is the training of students in the various phases of agriculture and livestock husbandry. Students are required to undertake a considerable amount of practical work in addition to lectures and theory. A secondary function of the colleges is agricultural re-research and experimentation. To a lesser degree, they carry out extension work in the form of public field days. Upon graduation, students receive diplomas in agriculture, dairying, etc., according to the course undertaken.

Experimental farms have been set up by State Departments of Agriculture in all States. They are concerned primarily with agricultural research and experimentation, each farm concentrating on problems specific to the region in which it is located. The results of the work undertaken are passed on to farmers at field days which are held at regular intervals, through publication in various agricultural or scientific journals, and through the agricultural extension services of the State Departments of Agriculture.

The Commonwealth Scientific and Industrial Research Organization has field stations in many parts of Australia, and sometimes undertakes research jointly with the appropriate State authorities. It also has regional laboratories in several States, conducting research into agronomic and livestock problems as they occur in each particular region (*see also* the chapter Education, Cultural Activities and Research). The State Departments of Agriculture study problems of particular significance within their own boundaries. In addition, the universities carry out valuable work in their laboratories and on their experimental farms.

Distribution, production and value of crops

Distribution of crops

The wide range of climatic and soil conditions over the agricultural regions of Australia has resulted in a diversity of crops being grown throughout the Commonwealth. Generally, cereal crops (excluding rice and sorghum) are grown in all States over wide areas, while industrial crops are confined to specific locations in a few States. The following was the distribution in the 1964-65 season.

AREA OF CROPS: STATES AND TERRITORIES, 1964-65

(Acres)

Crop	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Cereals for grain—									
Barley—									
2-row . . .	148,239	177,242	202,926	1,053,068	57,982	15,130	..	..	1,654,587
6-row . . .	90,744	9,695	22,366	41,672	244,651	349	..	..	409,477
Maize—Hybrid	(a) 36,655	2,148	(a) 137,688	..	(b)	..	..	..	(c) 176,491
Other . . .	(a) 5,005	205	(a) 30,612	..	10	..	..	..	35,832
Oats . . .	850,147	966,280	55,464	443,794	1,151,969	28,086	..	1,487	3,497,227
Panicum, millet and setaria . . .	1,031	1,762	50,991	..	(d)	..	(e)	..	53,784
Rice . . .	61,617	..	..	..	(d)	..	..	(c)	61,617
Rye . . .	4,188	13,581	318	43,852	9,754	85	..	..	71,778
Sorghum . . .	(a) 51,699	..	(a) 292,769	..	..	..	1,269	..	345,737
Wheat . . .	5,760,090	3,236,039	1,025,521	2,726,826	5,151,267	16,805	..	2,094	17,918,642
Hay . . .	599,821	1,306,366	82,419	314,318	304,610	180,256	1,280	3,469	2,792,539
Green fodder . . .	2,397,497	454,267	1,111,197	1,135,288	446,032	67,431	649	1,166	5,613,527
Other stock fodder . . .	5,359	20,355	3,717	35,326	2,788	30,180	n.a.	..	(c) 97,725
Grass seed—									
Lucerne . . .	10,327	(f)	610	28,612	..	..	444	..	(c) 39,993
Clover . . .	28,116	15,237	20	8,645	62,732	2,400	..	..	117,150
Other . . .	13,617	40,365	11,918	14,578	13,269	(g) 6,613	286	404	(c) 101,050
Industrial crops—									
Broom millet . . .	1,945	228	302	..	10	..	..	..	2,485
Canary seed . . .	..	(d)	11,435	(d)	..	..	..	..	(c) 11,435
Cotton . . .	(a) 18,897	(d)	(a) 13,550	..	(a) 5,475	..	..	..	(c) 37,922
Flax—									
For fibre . . .	..	..	..	..	729	..	..	..	729
For linseed . . .	23,769	9,953	97,092	898	2,135	..	..	..	133,847
Hops . . .	..	633	..	..	(d)	(h) 1,573	..	..	(c) 2,206
Peanuts . . .	400	..	45,554	..	..	..	(d)	..	(c) 45,954
Sugar cane—									
For crushing . . .	19,429	..	450,956	..	..	..	..	..	470,385
Stand-over and cut for plants . . .	17,771	..	139,802	..	..	..	..	..	157,573
Safflower . . .	2,253	1,902	43,350	(d)	4	..	..	..	(c) 47,509
Sunflower . . .	89	(d)	7,666	..	..	..	..	..	(c) 7,755
Tobacco . . .	2,546	9,720	14,042	..	..	..	..	..	26,308
Other . . .	..	821	254	..	..	334	..	..	1,409
Vegetables for human consumption—									
Onions . . .	803	3,825	3,422	1,146	428	83	(i)	(i)	(c) 9,707
Potatoes . . .	20,530	32,931	14,005	5,247	5,797	9,393	(i)	16	(c) 87,919
Other . . .	41,094	45,861	42,180	9,204	7,872	21,482	150	109	167,952
Vineyards—									
Bearing . . .	17,220	44,203	2,902	53,386	7,577	..	..	..	125,288
Not bearing . . .	3,244	3,793	397	5,471	733	..	..	..	13,638
Fruit—									
Bearing . . .	77,303	56,254	31,977	29,293	19,504	19,398	67	48	233,844
Not bearing . . .	19,918	19,255	13,941	13,719	6,921	2,977	63	8	76,802
Nurseries and cut flowers . . .	1,121	2,532	494	248	280	88	..	11	4,774
All other crops . . .	1,961	1,606	4,988	147	2,029	1,725	28	3	12,487
Total area . . .	10,334,445	6,477,059	3,966,845	5,964,738	7,504,558	404,388	4,236	8,815	34,665,084

(a) Sown 1963-64. (b) Included in Other maize. (c) Incomplete: see individual States. (d) Not available for publication. Included in All other crops. (e) Not available for publication. Excluded from totals. (f) Not available separately. Included in All other crops. (g) Excludes area sown simultaneously to oats. (h) Includes 98 acres not bearing. (i) Not available for publication. Included in Other vegetables.

The proportion of each of the major crops cultivated in the various States and Territories to the total area of crops for the season 1964-65 is shown in the next table.

RELATIVE AREAS OF CROPS: STATES AND TERRITORIES, 1964-65
(Per cent)

Crop	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Wheat (grain)	55.7	50.0	25.9	45.7	68.6	4.2	..	23.8	51.7
Green fodder	23.2	7.0	28.0	19.0	5.9	16.7	15.3	13.2	16.2
Oats (grain)	8.2	14.9	1.4	7.4	15.4	6.9	..	16.9	10.1
Hay	5.8	20.2	2.1	5.3	4.1	44.6	30.2	39.4	8.1
Barley (grain)	2.3	2.9	5.7	18.4	4.0	3.8	..	..	6.0
Sugar cane for crushing	0.2	..	11.4	..	..	..	..	..	1.4
Sorghum	0.5	..	7.4	..	..	..	30.0	..	1.0
Fruit	0.9	1.2	1.2	0.7	0.4	5.5	3.1	0.6	0.9
Maize (grain)	0.4	..	4.2	..	..	..	..	..	0.6
Vineyards	0.2	0.7	0.1	1.0	0.1	..	..	..	0.4
Potatoes	0.2	0.5	0.4	0.1	0.1	2.3	(a)	0.2	(b) 0.3
All other	2.4	2.6	12.2	2.4	1.4	16.0	21.4	5.9	3.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

(a) Not available for publication. Included in All other.

(b) Incomplete.

The area of crops during each of the five seasons ended 1964-65 is shown hereunder.

AREA OF CROPS: AUSTRALIA, 1960-61 TO 1964-65
('000 acres)

Crop	1960-61	1961-62	1962-63	1963-64	1964-65
Cereals for grain—					
Barley—					
2-row	2,830	2,383	1,553 474	1,621 392	1,655 409
6-row					
Maize—					
Hybrid	185	211	161 48	172 43	176 36
Other					
Oats	3,637	3,097	3,292	3,392	3,497
Rice	46	50	55	59	62
Sorghum	255	363	391	366	346
Wheat	13,439	14,723	16,469	16,474	17,919
Hay	2,973	2,274	2,720	2,602	2,793
Green fodder	4,408	4,702	4,952	4,877	5,614
Grass seed	150	138	162	219	258
Industrial crops—					
Cotton	37	29	38	41	38
Flax for linseed	96	62	97	118	134
Hops	2	2	2	2	2
Peanuts	43	34	36	45	46
Sugar cane	475	499	506	539	628
Safflower	5	9	6	19	48
Tobacco	29	27	29	29	26
Vegetables for human consumption—					
Onions	9	9	11	9	10
Potatoes	92	94	114	102	88
Other	155	163	163	166	168
Vineyards	131	133	134	136	139
Fruit	289	294	305	310	311
All other crops	290	343	374	312	262
Total	29,576	29,639	32,092	32,045	34,665

Production of crops

The following table shows production of crops in the various States and Territories for the season 1964-65.

PRODUCTION OF CROPS: STATES AND TERRITORIES, 1964-65

Crop	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Cereals for grain—									
Barley—									
2-row . . . '000 bus.	4,040	4,141	6,440	26,021	614	519	..	..	41,775
6-row . . . "	2,667	194	671	911	3,087	10	..	..	7,540
Maize—									
Hybrid . . . "	(a) 1,699	108	(a) 4,089	..	..	..	..	..	5,896
Other . . . "	(a) 179	6	(a) 798	..	..	..	..	..	983
Oats . . . "	22,885	22,446	1,171	8,977	14,011	521	..	32	70,043
Panicum, millet and setaria . . . "	10	30	847	..	(b)	..	(b)	..	887
Rice . . . "	8,030	..	..	..	(b)	..	(b)	..	(c) 8,030
Rye . . . "	73	109	..	261	65	2	..	..	514
Sorghum . . . "	(a) 1,270	..	(a) 5,883	..	..	..	11	..	7,164
Wheat . . . "	151,483	78,166	22,830	52,817	63,071	364	..	58	368,789
Hay . . . '000 tons	1,040	2,506	167	487	390	365	1	7	4,963
Grass seed—									
Lucerne . . . cwt.	9,874	n.a.	378	31,331	..	..	1,194	..	(c) 42,777
Clover . . . "	56,084	28,598	1	21,045	122,077	1,789	..	..	229,594
Other . . . "	9,103	70,050	6,196	18,718	17,260	18,144	41	36	139,548
Industrial crops—									
Broom millet—									
Fibre . . . cwt.	9,634	975	1,047	..	60	..	..	..	11,716
Grain . . . bushels	11,766	735	n.a.	..	..	..	..	..	(c) 12,501
Canary seed . . '000 bus.	..	(b)	140	(b)	..	..	..	..	(c) 140
Cotton, unginned '000 lb.	a 45,951	(b)	(a) 6,268	..	a 10,790	..	..	..	(c) 63,009
Flax—									
Fibre . . . tons	..	..	..	..	1,388	..	..	..	1,388
Linseed . . . "	8,761	2,671	34,175	426	567	..	..	..	46,600
Hops (dry weight) cwt.	..	9,253	..	..	(b)	18,640	..	..	(c) 27,893
Peanuts . . . "	4,746	..	202,369	..	..	..	(b)	..	(c) 207,115
Sugar cane for crushing '000 tons	784	..	14,286	..	..	..	..	..	15,070
Safflower . . . bushels	33,373	20,218	643,524	(b)	280	..	..	..	(c) 697,395
Sunflower . . . cwt.	194	(b)	39,065	..	..	..	..	..	(c) 39,259
Tobacco, dried leaf . . '000 lb.	2,356	12,080	10,675	..	..	..	..	..	25,111
Vegetables for human consumption—									
Onions . . . tons	6,378	22,963	22,853	11,061	5,981	465	(b)	(b)	(c) 69,701
Potatoes . . . "	75,659	183,665	82,389	48,400	60,739	57,062	(b)	105	(c) 508,019
Vineyards—									
Grapes—									
For drying . . . "	53,144	292,060	..	85,476	9,756	..	..	..	440,436
" table . . . "	8,251	9,495	3,825	1,167	2,256	..	..	..	24,994
" wine . . . "	40,833	20,180	191	158,340	5,335	..	..	..	224,879

(a) Harvested from crop sown in 1963-64.
individual States.

(b) Not available for publication.

(c) Incomplete; see

The following tables show the production and yield per acre of the principal crops for the five years ended 1964-65.

PRODUCTION OF PRINCIPAL CROPS: AUSTRALIA, 1960-61 TO 1964-65

Crop	1960-61	1961-62	1962-63	1963-64	1964-65
Cereals for grain—					
Barley—					
2-row '000 bus.	67,970	41,504	31,370	36,464	41,775
6-row " }					
Maize—Hybrid " }	6,245	7,307	6,064	5,592	5,896
Other " }					
Oats " }	76,107	55,130	68,809	68,234	70,043
Rice " }					
Sorghum " }	5,996	9,361	10,252	7,889	8,030
Wheat " }					
Hay '000 tons	5,079	3,693	4,717	4,269	4,963
Grass seed cwt.	197,120	187,810	232,669	333,286	411,919
Industrial crops—					
Cotton, unginned '000 lb.	15,544	10,948	15,762	18,223	63,009
Flax for linseed tons	13,565	12,589	25,717	29,516	46,600
Hops (dry weight) cwt.	33,099	32,936	33,629	19,858	27,893
Peanuts " }	457,008	299,613	319,402	460,726	207,115
Sugar cane for crushing '000 tons					
Safflower '000 bus.	58	86	90	303	697
Tobacco (dried leaf) '000 lb.	29,862	22,578	27,148	34,342	25,111
Vegetables for human consumption—					
Onions '000 tons	54	58	68	59	70
Potatoes " }	451	526	667	562	508
Vineyards—					
Grapes " }	527	628	471	655	690
Wine made(a) '000 gals.					
Dried vine fruits '000 tons	82	96	71	104	108

(a) Net factory and farm production of beverage and distillation wine. This excludes the liquid gallage of spirits added in wine fortifying.

YIELD PER ACRE OF PRINCIPAL CROPS: AUSTRALIA 1960-61 TO 1964-65

Crop	1960-61	1961-62	1962-63	1963-64	1964-65
Cereals for grain—					
Barley—					
2-row bushels	24.0	17.4	20.2	22.5	25.2
6-row " }					
Maize—Hybrid " }	33.8	34.7	37.7	32.6	33.4
Other " }					
Oats " }	20.9	17.8	20.9	20.1	20.0
Rice " }					
Sorghum " }	23.5	25.8	26.2	21.6	20.7
Wheat " }					
Hay tons	1.71	1.62	1.73	1.64	1.78
Industrial crops—					
Cotton, unginned lb.	420	380	418	445	1,662
Flax for linseed tons	0.14	0.20	0.26	0.25	0.35
Hops (dry weight)(a) cwt.	17.8	17.1	16.8	9.7	13.2
Peanuts " }	10.68	8.81	8.89	10.25	4.51
Sugar cane for crushing(a) tons					
Safflower bushels	26.9	24.8	31.7	29.0	32.0
Tobacco (dried leaf) lb.	10.7	9.6	15.8	15.6	14.7
Vegetables for human consumption—					
Onions tons	5.87	6.20	6.34	6.43	7.18
Potatoes " }	4.91	5.57	5.86	5.51	5.78
Vineyards—					
Grapes(a) " }	4.32	5.14	3.86	5.28	5.51

(a) Per acre of productive crops.

Gross value of agricultural production

The following table shows the gross value of principal crops and of total agricultural production in Australia for the five years ended 1964-65.

Further reference to the value of production of agriculture and other industries in Australia as well as a brief explanation of the terms used may be found in the chapter Miscellaneous.

GROSS VALUE^(a) OF AGRICULTURAL PRODUCTION: AUSTRALIA
1960-61 TO 1964-65
 (\$'000)

Crop	1960-61	1961-62	1962-63	1963-64	1964-65
Cereals for grain—					
Barley	62,144	43,866	42,656	47,484	55,620
Maize	10,528	10,570	9,524	10,364	9,999
Oats	51,070	40,002	51,258	49,666	51,449
Rice	8,250	7,664	7,676	7,912	8,529
Wheat	391,356	372,344	449,064	467,432	517,702
Hay	100,362	75,492	92,958	87,462	99,209
Green fodder	19,294	17,486	19,224	20,990	25,011
Industrial crops—					
Cotton, unginned	1,834	1,294	1,876	2,212	7,685
Hops	2,358	2,484	2,570	1,534	2,372
Sugar cane	101,160	99,216	131,038	162,880	133,372
Tobacco (dried leaf)	26,102	24,244	30,022	33,408	24,608
Vegetables for human consumption—					
Onions	3,666	5,094	3,628	4,096	5,340
Potatoes	38,730	41,394	27,960	33,226	60,713
Other vegetables for human consumption	59,436	57,486	57,552	66,514	72,073
Grapes	35,736	39,630	32,048	46,416	50,385
Fruit and nuts	119,546	126,726	128,860	135,133	146,242
All other crops	39,790	43,352	48,712	51,758	53,413
Total	1,071,362	1,008,344	1,136,626	1,228,487	1,323,722

(a) Includes amounts paid as bounty, relief, etc.

Values of agricultural production in the various States and Territories are shown for 1964-65 in the following table. In computing the net value of production, no deduction has been made for the cost of maintenance of farm buildings and fences, nor for the depreciation of farm plant.

GROSS, LOCAL AND NET VALUES OF AGRICULTURAL PRODUCTION
STATES AND TERRITORIES, 1964-65
 (\$'000)

State or Territory	Gross production valued at principal markets	Marketing costs	Local value of production	Value of materials used in process of production	Net value of production ^(a)
New South Wales	395,283	76,488	318,795	(b) 24,912	293,883
Victoria	298,751	40,696	258,055	21,673	236,382
Queensland	270,639	33,164	237,475	43,802	193,673
South Australia	178,132	21,276	156,856	22,617	134,239
Western Australia	139,426	18,126	121,300	28,500	92,800
Tasmania	40,875	7,900	32,975	5,752	27,223
Northern Territory	222	n.a.	222	n.a.	222
Australian Capital Territory	394	28	366	17	349
Australia	1,323,722	197,678	1,126,044	147,273	978,771

(a) No deduction has been made for depreciation and maintenance. (b) No allowance has been made for costs of power, power kerosene, petrol and other oils.

In the following table the net value of agricultural production and the net value per head of population are shown by States for the years 1960-61 to 1964-65.

**NET VALUE OF AGRICULTURAL PRODUCTION^(a)
STATES AND TERRITORIES, 1960-61 TO 1964-65**

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Net value (\$'000)—									
1960-61 . . .	196,342	208,062	146,942	116,646	93,416	21,878	160	276	783,722
1961-62 . . .	187,716	176,490	150,152	90,934	102,650	24,690	150	224	733,006
1962-63 . . .	226,072	193,972	185,728	93,358	108,506	22,312	168	298	830,414
1963-64 . . .	245,906	218,136	222,370	125,180	79,622	25,729	169	276	917,388
1964-65 . . .	293,883	236,382	193,673	134,239	92,800	27,223	222	349	978,771
Per head of population (\$)—									
1960-61 . . .	50.7	71.9	97.7	121.9	128.0	62.5	6.2	5.0	75.4
1961-62 . . .	47.5	59.6	98.3	92.8	137.6	69.2	5.7	3.6	69.1
1962-63 . . .	56.3	64.2	119.7	93.5	141.9	61.6	6.1	4.3	76.8
1963-64 . . .	60.2	70.6	141.3	122.7	101.8	70.3	5.6	3.6	83.2
1964-65 . . .	70.7	74.6	121.3	128.7	116.4	74.0	6.8	4.1	87.0

^(a) No deduction has been made for depreciation and maintenance.

Indexes of quantum and price of agricultural production

Indexes of quantum and price of agricultural production are shown in the following table. The quantum indexes relate to gross output of farm products valued at constant prices. The quantities of each farm product produced each year have been re-valued at the unit gross value for the period 1936-37 to 1938-39. The price indexes relate to average 'prices' of farm products realized at the principal markets of Australia. Average quantities of each product marketed in the period 1946-47 to 1950-51 have been used as fixed weights. Further details on weights used, etc. are to be found in the chapter Miscellaneous.

**INDEXES OF QUANTUM^(a) AND PRICE OF AGRICULTURAL
PRODUCTION, 1960-61 TO 1964-65**

(Base: Average three years ended June, 1939 = 100)

—	1960-61	1961-62	1962-63	1963-64	1964-65
Quantum produced—					
Wheat . . .	166	150	186	199	224
Other crops . . .	184	171	194	194	214
<i>Total, all crops .</i>	<i>177</i>	<i>163</i>	<i>191</i>	<i>196</i>	<i>218</i>
<i>Per head of population</i>	<i>117</i>	<i>106</i>	<i>121</i>	<i>122</i>	<i>133</i>
Price—					
Wheat . . .	355	380	366	356	351
Other crops . . .	344	323	309	348	351
<i>Total, all crops .</i>	<i>349</i>	<i>348</i>	<i>334</i>	<i>351</i>	<i>351</i>

^(a) Indexes of value at constant prices, i.e. quantities revalued at average unit values of the base years (1936-37 to 1938-39).

Wheat

Wheat is grown on a large scale in all States except Tasmania, and is the most important crop in Australia in terms of area, production and exports. The present limits of the wheat belt have been established after considerable fluctuation over the last four decades. In January 1934 a Royal Commission was appointed to inquire into and report upon the economic condition of the growing, handling and marketing of wheat, and the manufacturing, distributing and selling of flour and bread. The Report of this Royal Commission provides an authoritative description of all aspects of the industry up to that time.

Wheat marketing and research

Two of the aspects of governmental and semi-governmental assistance and control which have contributed to the development of the industry are the organization of oversea marketing and of research.

As a large proportion of the Australian wheat crop is normally exported, the marketing of wheat plays an important part in the industry. The Australian Wheat Board was constituted in September 1939, under National Security (Wheat Acquisition) Regulations, to purchase, sell, or dispose of wheat or wheat products, and to manage and control all matters connected with the handling, storage, protection, shipment, etc. of wheat acquired, and such other matters as were necessary to give effect to the regulations. Details of the operations of the Australian Wheat Board and the Wheat Stabilization Board in licensing wheat grown during the seasons 1941-42 to 1948-49 will be found in Year Book No. 38, pages 940-1, and a detailed survey of legislation relating to stabilization of the wheat industry, including controls exercised during the 1914-18 and 1939-45 Wars and legislation establishing the Wheat Stabilization Plan in 1948, is given in the Appendix to Year Book No. 37, pages 1295-9.

The Wheat Stabilization Board ceased to function on 31 December 1948, and under the *Wheat Industry Stabilization Act* 1948 the Australian Wheat Board was reconstituted for five years to administer the first stabilization plan and was given powers similar to those held under the National Security Regulations. The new Board commenced to function on 18 December 1948. The Board has been continued in existence by the *Wheat Industry Stabilization Acts* 1954, 1958 and 1963 for the purpose of administering the second, third and fourth five-year stabilization plans. Details of the more recent plans were published in Year Book No. 40, pages 841 and 842 (1947-48 to 1952-53 Plan), No. 44, page 861 (1953-54 to 1957-58), and No. 48, pages 903 and 904 (1958-59 to 1962-63).

Fourth Post-war Wheat Industry Stabilization Plan. Following negotiations during 1962 and 1963, the fourth post-war Wheat Industry Stabilization Plan was enacted by the Commonwealth and States towards the end of 1963. The new plan operates on very much the same lines as the previous ones. However, there are some important changes in detail in the main features of the plan which are set out below.

The plan operates for five years. It commenced with the 1963-64 wheat crop and will end with the marketing of the 1967-68 crop.

The *Wheat Export Charge Act* 1963 repealed the *Wheat Export Charge Act* 1958 and provided for an export charge on wheat and wheat products for the seasons 1963-64 to 1967-68 inclusive. The charge which may be levied is the excess of the export price over the cost of production or 1s. 6d. (15 cents) per bushel, whichever is the less. The Commonwealth guaranteed a return of 14s. 5d. (\$1.44) a bushel bulk basis f.o.r. ports to growers on up to 150 million bushels (previously 100 million bushels) of wheat exported from the crop in the first year of the plan. The guaranteed return of 14s. 5d. (\$1.44) was based on the findings of a survey of the economic structure of the wheat industry conducted by the Bureau of Agricultural Economics. It is subject to adjustment in each of the following years of the plan in accordance with the movements in costs based on a cost index established from the survey. The guaranteed return for the third year of the plan (1965-66 season) is \$1.52 a bushel. The ceiling of the stabilization fund is established at \$60 million; any excess beyond this figure is returned to growers on the 'first-in, first-out' principle. Collections from the wheat export charge are paid into the Wheat Prices Stabilization Fund, out of which payments will be made to the Australian Wheat Board, when required, for the purpose of building up the average export price for any season to the guaranteed price. When the average export realizations fall below the guaranteed return the deficiency is made up first by drawing upon the stabilization fund in respect of up to 150 million bushels of wheat from each crop. If the fund is exhausted, additional payments will be made from the Consolidated Revenue Fund. As the return from exports has been below the guaranteed price, there have been no collections of the wheat export charge since the 1956-57 (No. 20) pool when £1,589,000 (\$3,178,000) was collected.

The Australian Wheat Board is retained as the sole constituted authority for the marketing of wheat within Australia and for the marketing of wheat and flour for export from Australia for the period of the plan.

The home consumption base price for 1963-64, the first year of the new plan, was established at 14s. 5d. (\$1.44) a bushel, bulk basis, f.o.r. ports plus 2d. (1.7 cents) per bushel loading to cover the cost of transporting wheat to Tasmania as outlined below. There is provision in the plan for annual adjustments in the following years in accordance with the guaranteed price as outlined above. The home consumption price for the 1965-66 season is \$1.52 a bushel plus 1.7 cents a bushel to cover freight on wheat to Tasmania.

Provision is made for a loading on the price of all wheat sold for consumption in Australia to the extent necessary to cover the cost of transporting wheat from the mainland to Tasmania in each season of the plan.

A premium is paid from export realizations on wheat grown in Western Australia and exported from that State, in recognition of the natural freight advantage enjoyed by Western Australia owing to its proximity to the principal overseas markets for wheat. The premium is the amount of the actual freight advantage enjoyed by Western Australia up to a maximum of 3d. (2.5 cents) a bushel.

The cost of production of wheat for the first season of the current Wheat Stabilization Plan, 1963-64, was fixed at 14s. 5d. (\$1.44) a bushel by the legislation. The guaranteed price for the season 1963-64 was therefore 14s. 5d. (\$1.44) a bushel, while the home consumption price was 14s. 7d. (\$1.46) a bushel (*see* p. 891). The guaranteed price for 1963-64 was a reduction of 1s. 5d. (14 cents) a bushel compared with the guaranteed price of 15s. 10d. (\$1.58) for the 1962-63 season, the last year of the previous wheat stabilization plan. The cost of production and guaranteed price for the 1965-66 season have been established at \$1.52 a bushel.

F.A.Q. standard of wheat

Sales and shipments of grain in bulk overseas are generally made on a 'fair average quality' (f.a.q.) basis. Samples of wheat are obtained each year from the different wheat districts and mixed to give a representative sample of the whole crop in each State. From this representative sample the f.a.q. weight for each State is determined by the use of the Schopper 1-litre scale chondrometer. This standard is used as a basis for sales of each crop and it varies from year to year and from State to State. F.a.q. is an Australian term, and the method of selling differs from that of other countries, which sell according to sample, or (as in Canada) according to grades which are fixed and do not vary from year to year. The f.a.q. method does not, however, take protein quantity and quality into account, and it gives no indication therefore of the baking strength of the resulting flour.

There are two classifications of Australian wheat in addition to the f.a.q. standard, namely, 'semi-hard' and 'premium'. The former applies to wheat segregated as such in New South Wales and South Australia, and the latter to higher-protein wheat of northern New South Wales and Queensland of a guaranteed minimum protein content. Both wheats sell at a premium above f.a.q. The f.a.q. weight of a bushel of wheat in each of the four main wheat-producing States for the 1964-65 season's crop was as follows: New South Wales, north (predominantly semi-hard), 64½ lb., south and west (predominantly soft), 64½ lb.; Victoria, 64 lb.; South Australia, semi-hard, 63 lb., soft, 62½ lb.; and Western Australia, 64½ lb.

Bulk handling and storage of wheat

A detailed description of the bulk handling system, including its advantages and disadvantages compared with other methods of handling, appears on pages 954-8 of Year Book No. 39.

New South Wales, Victoria and Western Australia have operated bulk handling systems for a number of years, and in more recent years other States have also introduced bulk systems. The bodies concerned with the administration of bulk handling in the various States are: Grain Elevators Board of New South Wales, Victorian Grain Elevators Board, State Wheat Board (Queensland), South Australian Co-operative Bulk Handling Ltd., Co-operative Bulk Handling Ltd. (Western Australia), and the Tasmanian Grain Elevators Board.

The table below sets out the bulk handling capacities of the several States for the years 1961 to 1965.

WHEAT: TOTAL CAPACITY OF BULK HANDLING FACILITIES^(a)
STATES, 30 NOVEMBER 1961 TO 1965
 ('000 bushels)

State	1961	1962	1963	1964	1965
New South Wales	75,270	79,486	87,046	93,727	104,852
Victoria ^(b)	72,808	76,969	86,253	90,247	97,132
Queensland	7,486	9,525	11,081	13,178	15,956
South Australia	17,380	23,220	28,370	35,483	39,685
Western Australia	97,356	98,734	99,535	115,438	128,175
Tasmania	960	960	960	960	1,060
Australia	271,260	288,894	313,245	349,033	386,860

^(a) Includes terminals, sub-terminals, country installations, and temporary storage.
 in southern New South Wales operated by the Victorian Grain Elevators Board.

^(b) Includes storage

Particulars of the operation of the bulk handling and storage systems in each State are set out on pages 916 and 917 of Year Book No. 48.

International wheat agreement

Details of the first and second International Wheat Agreements operative from 1 August 1949, to 31 July 1953 and from 1 August 1953 to 31 July 1956, respectively, were published in Year Book No. 42 (*see* pages 840-1) and previous issues. Details of the third and fourth International Wheat Agreements which covered the period from 1 August 1956 to 31 July 1959 and 1 August 1959 to 31 July 1962 were published in Year Books Nos. 43 (page 836) and 48 (page 906), respectively.

A fifth International Wheat Agreement, ratified by the required number of wheat exporting and importing countries, came into force on 1 August 1962. This was intended to cover the three-year period from 1 August 1962, to 31 July 1965, but at a special meeting held in February 1965 the International Wheat Council adopted the text of a protocol providing for the prolongation of the Agreement, without amendment, to 31 July 1966. The council stated that it recognized the need for the maintenance of institutional arrangements to provide for continuing international co-operation in wheat matters, and that, following its decision to recommend a one-year extension of the existing agreement, it had given immediate consideration to preparatory work designed to ensure effective arrangements to follow the expiry of the term of the protocol. The Agreement has now been extended by protocol for a further year to 31 July 1967.

The current Agreement, negotiated at an international conference convened by the United Nations, continues the basic arrangements covered by previous Agreements. It seeks to obtain an element of stability in world wheat marketing by providing that a significant proportion of wheat entering international trade will be bought and sold at prices within a prescribed price range. The maximum and minimum prices fixed under the Agreement are expressed in terms of 'Canadian currency per bushel, at the parity of the Canadian dollar determined for the purposes of the International Monetary Fund as at 1 March 1949'. Member exporting countries compete to supply at prices within the prescribed range, which is from 202.5 cents (Canadian) or about 182.9 cents (Australian) to 162.5 cents (Canadian), or about 145.0 cents (Australian) per bushel. The maximum of the range is based on the price of Canada's No. 1 Northern Manitoba wheat in bulk in store at Fort William/Port Arthur. The minimum f.o.b. price for each exporter is the equivalent of the c. and f. price in the United Kingdom of the minimum price of Canada's No. 1 Northern Manitoba wheat in bulk in store at Fort William/Port Arthur, using currently prevailing transportation costs and exchange rates and making such allowance for differences in quality as may be agreed between the exporting and importing countries concerned.

Member importing countries have undertaken to buy each year from member exporting countries a stated percentage of their total commercial requirements at prices within the agreed range. For their part, exporting countries are obliged to make wheat available for purchase by importing countries in any crop year at prices within the price range in quantities sufficient to satisfy the commercial requirements of those countries; if the price goes to the maximum, exporters have undertaken to make available, at that maximum price, specified (datum) quantities based on their past trading record with member importers.

The current Agreement empowers the International Wheat Council to make an annual review of the world wheat situation, including the international implications of national policies in respect of wheat production, stocks and marketing, and the disposal of wheat surpluses on non-commercial terms.

Provision has also been made for the right of appeal against excessive discounts from the minimum price on the basis of differences in quality between the basic wheat—Canada's No. 1 Northern Manitoba wheat—and the wheat supplied by other member importing countries.

Member countries of the fifth International Wheat Agreement are as follows.

Exporters. Argentina, Australia, Canada, France, Italy, Mexico, Spain, Sweden, Union of Soviet Socialist Republics, and United States of America.

Importers. Austria, Belgium and Luxembourg, Brazil, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Federal Republic of Germany, Finland, Greece, Guatemala, Iceland, India, Indonesia, Ireland, Israel, Japan, Liberia, Libya, the Netherlands, New Zealand, Nigeria, Norway, Peru, Philippines, Portugal, Republic of Korea, Saudi Arabia, Sierra Leone, South Africa, Southern Rhodesia, Switzerland, Tunisia, United Arab Republic, United Kingdom, Vatican City, Venezuela, and Western Samoa.

Research into the wheat industry

The extension and growth of the wheat industry in the past has been made possible to a large extent through research into new varieties of seed, crop rotation and fertilizer treatments by governmental, university and private research organizations. In recent years there has been a growing awareness of the value of this research, and funds are being raised by a direct levy on the growers' returns.

The *Wheat Tax Act* 1957 imposed a tax of one farthing (0.208 cents) for each bushel of wheat—

- (a) which was delivered to the Wheat Board on or after the first day of October 1956 and before the date of commencement of the Act, or
- (b) which was delivered to the Wheat Board on or after that date.

The Act was amended in October 1965 to become the *Wheat Tax Act* 1965, to provide for an increase in the rate of taxation from one farthing to three-tenths of a penny (0.25 cents) for each bushel of wheat delivered to the Board on or after 1 October 1965. The *Wheat Research Act* 1957 provided for the establishment of a Wheat Research Trust Account to receive moneys payable under the *Wheat Act* 1957, and for the setting up of a Wheat Industry Research Council to direct the expenditure of moneys from that account for research, etc. to benefit the wheat industry. This money, contributed by the growers, is being spent by the Wheat Industry Research Committees set up in the wheat-growing States. These Committees, which consist of representatives of wheatgrowers, universities and State Departments of Agriculture, also received a total of £284,000 (\$568,000) under the provisions of the *Wheat Acquisition (Undistributed Moneys) Act* 1958.

The Commonwealth Government has undertaken to supply additional funds for research (with a maximum of \$1 for \$1 against the growers' contribution) and has set up the Wheat Industry Research Council to make recommendations on the appropriate expenditure of the Commonwealth contribution. The Council, at its inaugural meeting in February 1958, considered that possible avenues of research would include the breeding of better varieties, cereal chemistry, soil fertility, mechanization, the industry's cost structure, and marketing problems. To the end of June 1965 the Council and the State Committees had spent \$6,017,142, including grants to the Commonwealth Scientific and Industrial Research Organization, State Departments of Agriculture, universities, and agricultural colleges.

Wheat farms: number and classification by activity

Particulars of the number of farms growing twenty acres and upwards of wheat for grain during each of the years 1960-61 to 1964-65 are shown in the following table. A farm worked on the share system or as a partnership is included as one holding only.

NUMBER OF FARMS GROWING TWENTY ACRES AND UPWARDS
OF WHEAT FOR GRAIN: STATES AND A.C.T., 1960-61 TO 1964-65

State or Territory	1960-61	1961-62	1962-63	1963-64	1964-65
New South Wales	16,959	17,489	18,286	17,753	18,537
Victoria	10,625	11,648	12,166	11,370	11,981
Queensland	4,257	4,483	5,095	4,927	5,236
South Australia	8,913	9,434	9,881	9,902	9,657
Western Australia	8,614	8,722	8,966	8,983	8,779
Tasmania	121	222	243	251	255
Australian Capital Territory	14	25	27	29	20
Australia	49,503	52,023	54,664	53,215	54,465

There is in Australia a widespread combination of wheat growing with other rural activities. This is illustrated, for the 1959-60 season, by a table on pages 1016 and 1017 of Year Book No. 49.

Varieties of wheat sown

The breeding of wheat suitable to local conditions has long been established in Australia. Farrer (1845-1905) did invaluable work in pioneering this field, and the results of his labour and the continued efforts of those who have followed him have proved of immense benefit to the industry. Their efforts have resulted in the development of disease-resistant varieties, better average yields, and a greater uniformity of sample, with which have accrued certain marketing advantages, as well as an improvement in the quality of wheat grown. More than 1,000 different varieties of Australian wheats have been catalogued by the Commonwealth Scientific and Industrial Research Organization, but the number of principal varieties grown in any one season is restricted to about forty-five.

The principal varieties of wheat sown and the percentage of each to the total area sown in the five main wheat-producing States of Australia in 1964-65 were as follows: New South Wales, Heron (19.8), Falcon (11.2), Olympic (10.5); Victoria, Insignia (51.9), Pinnacle (18.7), Olympic

(17.9); Queensland, Spica (37.6), Gala (15.2), Mengavi (12.6); South Australia, Insignia (39.8), Gabo (16.1), Heron (11.6); and Western Australia, Gabo (30.0), Insignia (17.2), Insignia 49 (12.6). A detailed table of wheat varieties sown appears in the annual bulletin *The Wheat Industry*, No. 108, published in February 1966.

Wheat area, production and yield per acre

Prominent factors in the early development of the wheat industry were the increase in population following the discovery of gold and the redistribution of labour after the surface gold had been won. The economic depression of 1893 interrupted its progress, but its subsequent recovery was assisted by the invention of mechanical appliances, the use of superphosphates as an aid to production, and the introduction of new and more suitable varieties of wheat for Australian conditions. The establishment of closer settlement schemes and the settling of returned soldiers and others on the land were additional factors in its expansion.

The area, production and yield per acre of wheat for grain in each State are shown below for the years 1960-61 to 1964-65 in comparison with the averages for the three-year periods ended 1938-39, 1948-49 and 1958-59.

WHEAT FOR GRAIN: AREA, PRODUCTION AND YIELD PER ACRE STATES AND A.C.T., 1936-37 TO 1964-65

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	A.C.T.	Aust.
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AREA ('000 ACRES)

Average for three years ended—								
1938-39 . . .	4,366	2,609	366	3,100	3,005	18	2	13,466
1948-49 . . .	4,519	3,241	439	2,319	2,685	7	4	13,214
1958-59 . . .	2,392	1,737	508	1,392	3,005	5	1	9,040
Year—								
1960-61 . . .	4,076	2,672	693	1,969	4,021	7	1	13,439
1961-62 . . .	4,498	2,849	750	2,229	4,380	16	1	14,723
1962-63 . . .	5,008	3,125	919	2,595	4,804	15	3	16,469
1963-64 . . .	4,964	3,109	938	2,802	4,640	18	3	16,474
1964-65 . . .	5,760	3,236	1,026	2,727	5,151	17	2	17,919

PRODUCTION ('000 BUSHEL)(a)

Average for three years ended—								
1938-39 . . .	56,890	36,374	4,783	34,606	31,539	434	45	164,671
1948-49 . . .	58,537	48,332	8,569	28,856	31,517	138	78	176,027
1958-59 . . .	35,178	36,705	9,938	26,126	40,950	135	15	149,047
Year—								
1960-61 . . .	84,657	67,587	10,999	46,395	63,900	148	30	273,716
1961-62 . . .	78,350	56,879	12,018	33,854	65,700	345	32	247,178
1962-63 . . .	109,002	67,899	18,683	38,339	72,500	419	70	306,912
1963-64 . . .	122,472	76,302	22,275	53,971	52,340	483	69	327,912
1964-65 . . .	151,483	78,166	22,830	52,817	63,071	364	58	368,789

YIELD PER ACRE (BUSHEL)(a)

Average for three years ended—								
1938-39 . . .	13.0	13.9	13.1	11.2	10.5	24.1	22.5	12.2
1948-49 . . .	13.0	14.9	19.5	12.4	11.7	19.7	19.5	13.3
1958-59 . . .	14.7	21.1	19.6	18.8	13.6	24.7	15.0	16.5
Year—								
1960-61 . . .	20.8	25.3	15.9	23.6	15.9	21.4	28.5	20.4
1961-62 . . .	17.4	20.0	16.0	15.2	15.0	22.2	22.7	16.8
1962-63 . . .	21.8	21.7	20.3	14.8	15.1	27.3	29.3	18.6
1963-64 . . .	24.7	24.5	23.8	19.3	11.3	27.5	24.6	19.9
1964-65 . . .	26.3	24.2	22.3	19.4	12.2	21.7	27.6	20.6

(a) 60 lb. per bushel.

A graph showing the area sown to wheat for grain in Australia since 1900-1 appears on plate 52 of this Year Book, and a map showing the distribution of areas growing wheat for grain throughout Australia in 1962-63 appears on page 1013 of Year Book No. 50. Similar maps showing the distribution of wheat areas in 1924-25, 1938-39, 1947-48, and 1954-55 appeared respectively in Year Books No. 22, page 695, No. 34, page 451, No. 39, pages 977-8, and No. 43, page 883.

Apart from the variations in the area sown, the size of the wheat harvest in Australia is determined largely by the nature of the season, resulting in considerable year-to-year fluctuations in production. The main wheat-producing States of Australia are New South Wales, Victoria, South Australia, and Western Australia. Queensland production normally approaches local demands, but Tasmania imports wheat from the mainland to satisfy its needs, though it exports flour made from local wheat which is particularly suitable for biscuits.

Production of wheat in 1964-65, 368,789,000 bushels, was a record, exceeding the previous record harvest of 1963-64 by 40,877,000 bushels (12 per cent). Compared with the previous season, the highest absolute increases were recorded in New South Wales, 29,011,000 bushels (24 per cent) and Western Australia, 10,731,000 bushels (21 per cent). New South Wales, Victoria and Queensland had record harvests.

Short-term variations in yield per acre are due chiefly to seasonal influences. The yield per acre in 1964-65 (20.6 bushels) was the second highest recorded. A record yield of 20.7 bushels was obtained in 1958-59.

The following table shows the average area, production and yield per acre for decennial periods since 1861 together with similar details for the latest season, 1964-65. Repeated cropping and short rotations (mainly in the eastern States) are believed to have led to the decline in yield to 1900, while fallowing and the widespread use of artificial fertilizers contributed to the increased yields in the decade following. The increase in yield since 1950 has been generally ascribed to the impact of improved pastures and ley-farming (broadly, the alternation of crops and pastures) upon soil fertility in wheat-growing areas.

WHEAT FOR GRAIN: AVERAGE AREA AND PRODUCTION, AUSTRALIA, 1861 TO 1964-65

Period	Area	Production	Yield per acre
	'000 acres	'000 bushels	bushels
Yearly average—			
1861-70 . . .	831	10,622	12.8
1871-80 . . .	1,646	17,711	10.8
1881-90 . . .	3,258	26,992	8.3
1891-1900 . . .	4,087	29,934	7.3
1901-10 . . .	5,711	56,058	9.8
1911-20 . . .	8,928	95,480	10.7
1921-30 . . .	11,291	135,400	12.0
1931-40 . . .	14,176	177,758	12.5
1941-50 . . .	11,358	145,599	12.8
1951-60 . . .	10,164	173,622	17.1
Year—			
1964-65 . . .	17,919	368,789	20.6

Price of wheat

The prices charged by the Australian Wheat Board for wheat sold to millers for gristing into flour for consumption in Australia and for wheat sold as stock feed were as follows: year ended 30 November 1962, 15s. 10d. (\$1.58); 1963, 15s. 11½d. (\$1.60); 1964, 14s. 7d. (\$1.46); 1965, 14s. 8d. (\$1.47), and 1966, \$1.53. These prices include a loading to meet freight charges incurred on wheat shipped to Tasmania (1d. in 1962; 1½d. in 1963; 2d. in 1964; 1d. in 1965; and 1.7c in 1966).

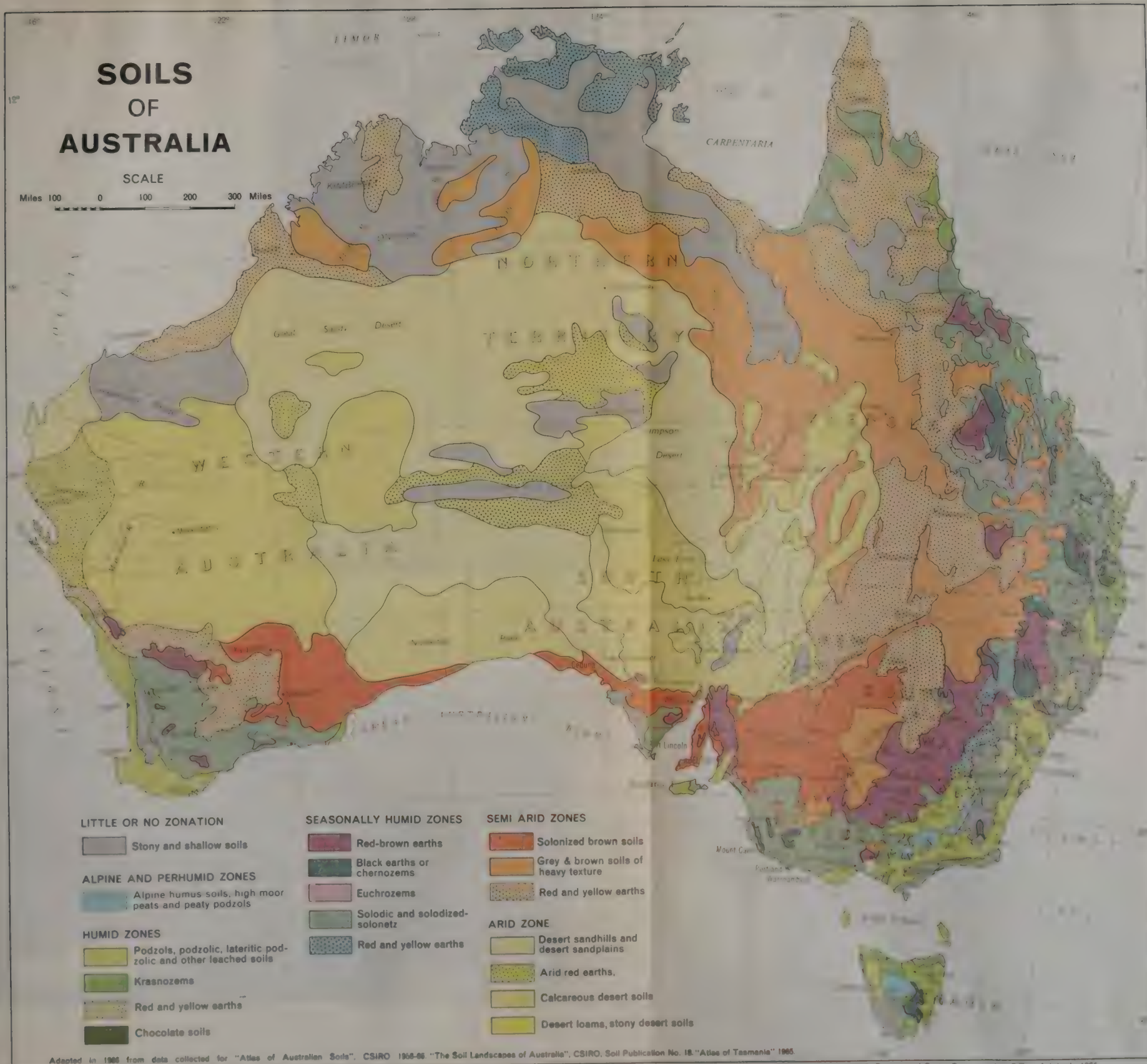
The Wheat Board's monthly basic export selling prices for f.a.q. bulk wheat f.o.b. basis, both for wheat sold under the International Wheat Agreement and for 'free' wheat sold on the open market, fell in the following ranges: season ended 31 July 1962, 13s. 10d. to 14s. 10½d. (\$1.38 to \$1.49); 1963, 14s. 2d. to 14s. 10½d. (\$1.42 to \$1.49); 1964, 14s. 4d. to 15s. 10d. (\$1.43 to \$1.58); and 1965, \$1.35 to \$1.52. Actual selling prices have been lower than the basic prices in some cases, particularly where other exporting countries enjoy a geographical freight advantage.

The 1959 International Wheat Agreement set the maximum price at 200 cents (Canadian) a bushel and the minimum at 150 cents (Canadian) for f.a.q. wheat sold under the Agreement. Under the current 1962 Agreement operative from 1 August 1962 (see page 893) the agreed price range is between 202.5 cents (Canadian) and 162.5 cents (Canadian). Directly converted into Australian currency these limits are approximately 182.9 cents and 145.0 cents a bushel respectively.

SOILS OF AUSTRALIA

SCALE

Miles 100 0 100 200 300 Miles



Adapted in 1966 from data collected for "Atlas of Australian Soils", CSIRO 1964-66. "The Soil Landscapes of Australia", CSIRO, Soil Publication No. 18. "Atlas of Tasmania" 1965.

Cartography by M. C. Coulls.

Prepared in CSIRO Division of Soils Cartographic Office Adelaide 1966.

Figure 1. Scrub woodland of Wandoo and Jarrah growing on the indurated zone of an ancient laterite at Hoddy's Well in the Darling Ranges near Perth, W.A. Note the depth of the strongly leached pallid zone.

Figure 2. Horticultural development in a valley in the Darling Ranges near Perth, W.A.

The effect of the soil changes associated with extent to which the laterite has been eroded is reflected in the variation in growth of the citrus in centre of the picture.

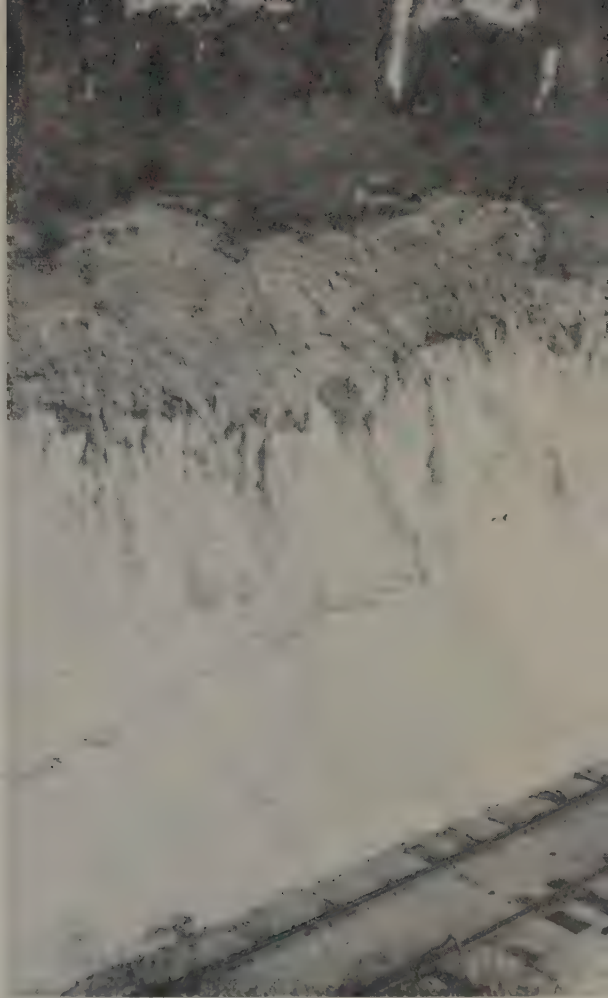


Figure 1. Mount Arapiles in Western Victoria overlooks a typical portion of the Wimmera District where wheat-growing with ancillary sheep grazing is the principal primary industry. The soils of the district are grey and brown soils of heavy texture. Their use for wheat-growing depends on fallowing for some months prior to seeding so as to store moisture from the previous rainfall for the use of the wheat crop in the following year. The high proportion of fallow land evident in the photograph reflects the almost universal adoption of this rotation system.

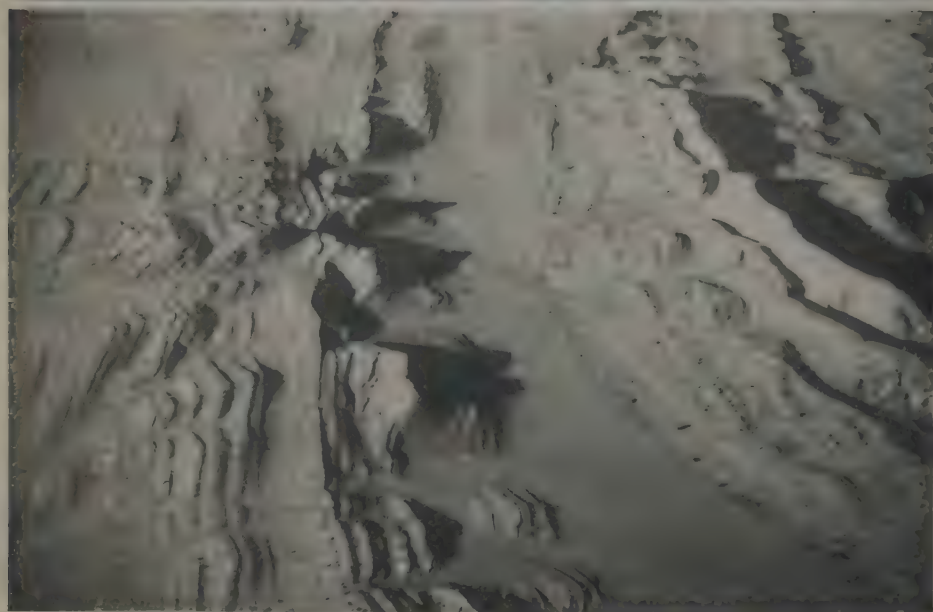


Figure 2. This oblique aerial photograph taken south of Alice Springs in the Northern Territory illustrates the topographic character of much of the more rugged pastoral country in the arid zone of Australia. The rocky hills of very prominent strike and dip shown by the photograph are being worn down largely by water erosion, and the relative proportions of useful land covered by soil and of the virtually useless rocky country are determined by the extent to which this process of denudation has proceeded. The hills shed a large part of their rainfall on to the adjoining areas covered by soil and so increase its productivity.

Details of export prices of wheat in previous years, including those received for wheat sold under the terms of the 1949-1953 International Wheat Agreement, are given in Year Book No. 40, pages 849-50, and in the statistical bulletin *The Wheat Industry, Australia*, No. 99, March 1961, and in previous issues of these publications.

Value of the wheat crop

The estimated gross value of the wheat crop in each State and in Australia during the season 1964-65 and the value per acre are shown below.

WHEAT FOR GRAIN: VALUE OF CROPS(a), STATES AND A.C.T., 1964-65

		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	A.C.T.	Aust.
Aggregate value	\$'000	212,479	109,396	32,157	74,550	88,557	486	77	517,702
Value per acre	\$	36.89	33.81	31.36	27.34	17.19	28.92	36.77	28.89

(a) Gross value of total crop, including wheat used for seed and for stock feed on farms. Also includes payment of \$18,069,000 by the Commonwealth Government.

Production and disposal of wheat in Australia

In the following tables details are given of Australian Wheat Board transactions and of total production and disposal of wheat during each of the years ended 30 November 1961 to 1965. (For particulars of production and yield from 1935-36 see plate 53.)

AUSTRALIAN WHEAT BOARD WHEAT RECEIVED, STATES, 1960-61 TO 1964-65 HARVESTS (⁰000 bushels)

Pool	Harvest	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
24 . . .	1960-61	72,984	66,881	8,821	43,706	59,012	63	251,467
25 . . .	1961-62	67,784	55,121	9,981	30,737	60,459	208	224,290
26 . . .	1962-63	98,677	67,215	17,537	35,120	66,898	275	285,722
27 . . .	1963-64	110,722	77,728	20,330	51,660	47,071	325	307,836
28 . . .	1964-65	137,495	80,682	20,712	49,991	57,440	188	346,508

Stocks of wheat (including flour in terms of wheat) held by the Australian Wheat Board in each State at 30 November for the years 1961 to 1965 are shown in the following table. These data relate to stocks held at mills, sidings, ports, and depots as recorded by the Australian Wheat Board.

AUSTRALIAN WHEAT BOARD: STOCKS(a) OF WHEAT (INCLUDING FLOUR IN TERMS OF WHEAT), STATES, 30 NOVEMBER 1961 TO 1965 (⁰000 bushels)(b)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
1961 . . .	7,701	8,780	965	3,122	3,338	452	24,358
1962 . . .	5,574	6,021	1,333	1,831	2,449	491	17,699
1963 . . .	10,879	7,000	775	1,775	2,221	625	23,275
1964 . . .	7,340	7,490	806	3,048	1,257	472	20,413
1965 . . .	15,265	3,716	862	2,602	1,556	381	24,382

(a) Held at mills, sidings, ports and depots. Excludes new season's wheat received from growers prior to 30 November of years shown. (b) One short ton (2,000 lb.) of flour is taken as being equivalent to 46.3 bushels of wheat.

Particulars of the disposal of wheat during the years ended 30 November 1961 to 1965, as recorded by the Australian Wheat Board, are shown in the following table.

AUSTRALIAN WHEAT BOARD: DISPOSAL OF WHEAT, 1961 TO 1965

('000 bushels)

	Year ended 30 November—				
	1961	1962	1963	1964	1965
Exported as wheat	202,027	152,818	203,703	221,530	243,725
Exported as flour(a)	29,438	25,123	24,903	31,797	23,318
Sold for local consumption as flour	39,814	40,736	40,389	42,954	44,160
Sold for other purposes	15,107	11,635	10,791	13,658	30,556

(a) Includes wheat equivalent of manufactured wheat products exported.

A summary of *all* transactions in wheat for Australia, as distinct from those recorded for the Wheat Board above, appears in the following table.

WHEAT: PRODUCTION AND DISPOSAL, AUSTRALIA, 1961 TO 1965

(million bushels)(a)

	Year ended 30 November—				
	1961	1962	1963	1964	1965
Opening stocks (including flour)(b)(c)(d) .	60.7	24.4	17.7	23.3	20.4
Production	273.7	247.2	306.9	327.9	368.8
<i>Total available supplies</i>	<i>334.4</i>	<i>271.6</i>	<i>324.6</i>	<i>351.2</i>	<i>389.2</i>
Exports—					
Wheat	205.1	154.7	200.1	221.7	244.7
Flour(b)	31.6	26.6	25.1	34.3	24.1
Breakfast foods and other products(b)(d) .	0.5	0.6	0.7	0.7	0.7
Local consumption—					
Flour(b)(d)	41.2	40.7	40.4	43.0	43.5
Breakfast foods and other products(b)(d) .	1.9	1.6	1.7	1.8	1.8
Stock feed wheat sales(d)	13.2	10.0	9.1	12.0	28.4
Seed	13.8	15.4	15.4	16.6	17.0
Retained on farm (excluding seed)	8.4	7.4	5.8	3.4	5.3
Closing stocks (including flour)(b)(c)(d) .	24.4	17.7	23.3	20.4	24.4
<i>Total disposals</i>	<i>340.1</i>	<i>274.7</i>	<i>321.6</i>	<i>353.9</i>	<i>389.9</i>
Excess (+) or deficiency (—) of disposals in relation to available supplies(e)	+5.7	+3.1	—3.0	+2.7	+0.7

(a) One short ton (2,000 lb.) of flour is taken as being equivalent to 46.3 bushels of wheat. (b) In terms of wheat. (c) Held at ports, depots, mills, and sidings. (d) Source: Australian Wheat Board. (e) Includes allowance for unrecorded movements in stocks, gain or loss in out-turn, etc.

The *Wheat Industry Stabilization Act* 1948 empowered the Minister to arrange with the Commonwealth Bank for advances to the Board, the advances being guaranteed by the Commonwealth Government. These provisions have been continued in the subsequent legislation, with the exception that advances are now arranged through the Reserve Bank.

AUSTRALIAN WHEAT BOARD: FINANCIAL OPERATIONS, POOLS NOS. 24 TO 28
(\$'000)

	No. 24 Pool (1960-61 Harvest)	No. 25 Pool (1961-62 Harvest)	No. 26 Pool (1962-63 Harvest)	No. 27 Pool (1963-64 Harvest)	No. 28 Pool(a) (1964-65 Harvest)
Paid to growers	305,370	288,414	351,972	373,254	322,946
Rail freight	37,430	33,886	45,358	49,270	57,874
Expenses	18,652	16,720	20,552	17,990	24,478
Total payments	361,452	339,020	417,882	440,514	405,298
Value of sales delivered	(b)344,206	(c)324,910	(d)395,842	(e)439,262	(f)468,594

(a) Incomplete. (b) Subject to additional \$17,768,000 provided by the Commonwealth Government and payment of \$522,000 to Wheat Industry Research Fund. (c) Subject to additional \$14,576,000 provided by the Commonwealth Government and payment of \$466,000 to Wheat Industry Research Fund. (d) Subject to additional \$22,634,000 provided by the Commonwealth Government and payment of \$594,000 to Wheat Industry Research Fund. (e) Subject to additional \$1,892,000 provided by the Commonwealth Government and payment of \$640,000 to Wheat Industry Research Fund. (f) Subject to additional \$18,069,000 provided by the Commonwealth Government and payment of \$722,000 to Wheat Industry Research Fund.

Details of earlier pools will be found in previous issues of the Year Book.

Imports of wheat

Wheat and flour have been imported in substantial quantities on three occasions since 1900; in 1902-3 the wheat harvest was only 12,378,000 bushels, and wheat and flour equivalent to 12,468,000 bushels of wheat were imported. An equivalent of 7,279,000 bushels was imported in 1914-15 to supplement the yield of 25 million bushels produced in that season. Owing to drought conditions in 1957-58 wheat supplies were insufficient for local requirements and, as a result, 1,485,000 bushels were imported from Canada in 1958. No wheat has since been imported.

Exports of wheat and flour

Statistics in the following three tables are for years ended 30 June and relate to the exports of *Australian produce only*.

WHEAT AND FLOUR: EXPORTS, AUSTRALIA, 1960-61 TO 1964-65

Year	Quantity				Value		
	Wheat	Flour		Total (in terms of wheat)	Wheat	Flour(a)	Total
		As flour (a)	In terms of wheat (b)				
	'000 bushels	short tons	'000 bushels	'000 bushels	\$A.'000 f.o.b.	\$A.'000 f.o.b.	\$A.'000 f.o.b.
1960-61	152,995	679,179	31,446	184,441	204,852	39,274	244,126
1961-62	203,155	602,665	27,903	231,058	284,892	36,328	321,220
1962-63	151,970	544,441	25,208	177,178	216,904	32,660	249,565
1963-64	253,724	714,939	33,102	286,826	362,018	43,758	405,776
1964-65	209,980	598,037	27,689	237,669	297,199	39,122	336,321

(a) White flour (plain and self-raising), sharps and wheatmeal for baking. (b) One short ton (2,000 lb.) of flour is taken as being equivalent to 46.3 bushels of wheat.

WHEAT: EXPORTS TO VARIOUS COUNTRIES, AUSTRALIA, 1960-61 TO 1964-65
(^{'000} bushels)

Country to which exported	1960-61	1961-62	1962-63	1963-64	1964-65
China (Mainland)	40,297	71,760	76,230	93,440	83,623
U.S.S.R. (Europe and Asia)			23	51,045	31,665
United Kingdom	27,410	23,282	16,317	28,146	19,132
India	4,910	21,166	7,144	7,572	17,543
Japan	13,110	15,698	12,673	18,800	16,276
Iran	1,852	582	705	1,163	8,983
New Zealand	6,108	6,252	6,088	6,687	6,104
Malaysia(a)	703	585	592	1,737	3,669
Norway	1,021	2,472	2,739	4,169	2,830
Other	57,584	61,358	29,459	40,965	20,155
Total	152,995	203,155	151,970	253,724	209,980

(a) Includes Singapore.

The following table shows the exports of flour to various countries for each of the years 1960-61 to 1964-65. The figures relate to exports of white flour (plain and self-raising), sharps and wheatmeal for baking.

FLOUR: EXPORTS TO VARIOUS COUNTRIES, AUSTRALIA, 1960-61 TO 1964-65
(Short tons)

Country to which exported	1960-61	1961-62	1962-63	1963-64	1964-65
Ceylon	117,590	178,538	103,503	115,273	191,144
Malaysia(a)	160,897	146,746	147,505	142,652	97,560
Arabian States	50,325	40,999	52,945	49,669	50,595
United Kingdom	56,136	66,560	66,641	48,744	45,579
Arabia, South	32,874	34,997	38,914	40,675	44,990
Fiji	28,102	30,240	29,554	37,993	34,915
Philippines	1,831	2,639	10,335	51,738	27,720
Mauritius	23,738	13,468	14,011	21,279	19,860
U.S.S.R. (Europe and Asia)			168	133,920	12,345
Other	207,686	88,478	80,865	72,996	73,329
Total	679,179	602,665	544,441	714,939	598,037

(a) Includes Singapore.

World area and production of wheat

The figures in the following table of the world area and production of wheat by principal countries and by continents have been compiled from the statistics published by the International Wheat Council. Harvests in the northern hemisphere occur in the first of the two years mentioned in each column heading, and in the southern hemisphere at the end of that year and the beginning of the next. Harvests of the northern hemisphere countries are thus combined with those of the southern hemisphere which immediately follow; e.g. in 1964-65 the Canadian harvest occurred from August to September 1964 and the Australian harvest from September 1964 to February 1965.

WHEAT: AREA, PRODUCTION AND YIELD PER ACRE IN VARIOUS COUNTRIES 1962-63 TO 1964-65

(Source for countries other than Australia: World Wheat Statistics—International Wheat Council)

Continent and country	Area			Production			Yield per acre		
	1962-63	1963-64	1964-65	1962-63	1963-64	1964-65	1962-63	1963-64	1964-65
	'000 acres	'000 acres	'000 acres	mill. bus.	mill. bus.	mill. bus.	bus.	bus.	bus.
U.S.S.R. (Europe and Asia)	166,545	159,627	167,749	2,600	1,826	2,734	15.6	11.4	16.3
Europe—									
France	11,293	9,513	10,843	516	377	509	45.7	39.9	46.9
Italy	11,258	10,858	10,892	349	299	316	31.0	27.5	30.0
Germany, Federal									
Republic of	3,259	3,415	3,576	169	178	185	51.8	52.2	51.8
Spain	10,534	10,495	10,341	177	179	146	16.8	17.0	14.2
Total, Europe(a)	72,220	68,531	71,953	2,270	2,016	2,238	31.4	29.4	31.1
Asia—									
China (Mainland)(b) . .	60,292	59,798	63,012	735	801	827	12.2	13.4	13.1
India	33,409	33,747	33,349	442	398	362	13.2	11.8	10.9
Turkey	19,595	19,724	19,741	311	349	307	15.8	17.7	15.5
Pakistan	12,311	12,592	12,701	149	155	154	12.1	12.3	12.1
Total, Asia(a)	150,311	151,867	154,241	2,000	2,008	1,982	13.3	13.2	12.9
North and Central America—									
United States	43,541	45,207	49,121	1,094	1,142	1,291	25.1	25.2	26.3
Canada	26,817	27,566	29,686	566	723	600	21.1	26.2	20.2
Total, North and Central									
America(a)	72,252	74,896	80,999	1,716	1,929	1,970	23.7	25.8	24.3
South America—									
Argentina	8,495	13,358	14,317	209	329	413	24.7	24.6	28.8
Total, South America(a)	14,579	19,348	19,620	301	408	507	20.6	21.1	25.9
Oceania—									
Australia	16,469	16,474	17,919	307	328	369	18.6	19.9	20.6
Total, Oceania(a)	16,694	16,679	18,103	316	338	378	18.9	20.3	20.9
Africa	16,877	18,854	19,323	221	236	215	13.1	12.5	11.1
World total(a)	509,478	509,802	531,988	9,424	8,760	10,024	18.5	17.2	18.9

(a) Includes allowances for any missing data for countries shown and for other producing countries not shown

(b) International Wheat Council estimate.

Principal wheat exporting and importing countries

The following table shows world exports of wheat and wheat flour (in terms of wheat) by the major wheat exporting countries, according to continents and countries of primary destination, based on statistics recently published by the International Wheat Council. While Australia's production of wheat averages about four per cent of the world's total, its exports account for a much higher proportion of the total quantities shipped. In 1964-65, for example, Australia's share of world wheat exports amounted to fourteen per cent.

WORLD EXPORTS OF WHEAT AND WHEAT FLOUR IN TERMS OF WHEAT

(Source: *World Wheat Statistics*—International Wheat Council)

(Million bushels)

Year and country of primary destination	Exporting country—							Total
	United States of America	Canada	Australia	France	Argentina	U.S.S.R.	Other	
1960-61	660.9	342.0	183.7	57.3	71.5	185.8	68.1	1,569.3
1961-62	717.8	365.2	230.6	67.4	87.3	185.6	90.2	1,744.1
1962-63	636.8	331.2	175.9	109.4	66.4	195.8	83.7	1,599.2
1963-64	848.7	554.4	287.1	98.5	102.0	47.1	134.3	2,072.1
1964-65p—								
Asia(a)—								
India	215.9	6.9	17.6	..	..	..	..	240.4
China (Mainland) . . . . .	..	64.6	82.8	14.7	21.7	..	1.6	185.4
Japan	60.8	52.7	16.3	1.0	..	..	..	130.8
Pakistan	64.6	2.6	2.2	..	..	..	..	69.4
Iran	10.5	..	9.0	6.9	..	1.0	..	27.4
Other	81.3	14.1	38.0	12.2	1.4	2.2	19.4	168.6
Total, Asia	433.1	140.9	165.9	34.8	23.1	3.2	21.0	822.0
Europe(a)—								
United Kingdom	9.0	83.2	20.4	9.3	18.8	..	13.5	154.2
Germany, East . . . . .	..	10.1	..	27.0	2.1	14.4	0.4	54.0
Poland	2.1	17.9	..	11.3	..	..	21.4	52.7
Yugoslavia	50.0	..	..	..	..	..	0.2	50.2
Germany, Federal								
Republic of	3.4	22.5	..	3.9	6.1	..	5.7	41.6
Netherlands	12.5	3.5	..	4.8	19.8	..	0.6	41.2
Czechoslovakia . . . . .	..	26.2	..	3.3	..	10.1	0.9	40.5
Italy	5.4	3.9	..	12.3	11.1	..	0.7	33.4
France	6.5	6.0	..	..	8.6	..	1.5	22.6
Other	16.2	43.9	4.1	20.3	10.8	6.6	9.3	111.2
Total, Europe	105.1	217.2	24.5	92.2	77.3	31.1	54.2	601.6
Africa—								
United Arab Republic	52.5	..	0.7	7.2	..	..	11.8	72.2
Other	37.2	6.6	4.0	26.6	2.0	0.3	10.1	86.8
Total, Africa	89.7	6.6	4.7	33.8	2.0	0.3	21.9	159.0
South America—								
Brazil	40.7	..	..	..	35.4	..	0.1	76.2
Other	34.9	12.3	0.1	0.8	17.7	..	0.6	66.4
Total, South America	75.6	12.3	0.1	0.8	53.1	..	0.7	142.6
U.S.S.R.	1.7	34.2	32.2	3.6	0.6	..	4.7	77.0
North and Central America	13.9	23.4	0.4	3.5	0.1	8.0	1.0	50.3
Oceania	0.1	0.2	9.0	0.7	..	..	..	10.0
All other . . . . .	..	..	0.8	..	..	..	4.5	5.3
World total, 1964-65	719.1	434.8	237.7	169.6	156.2	42.6	107.9	1,867.9

(a) Excludes U.S.S.R., details for which are shown separately.

The above particulars are based on customs clearances of the exporting countries, and relate to years ended 30 June. There is a small difference between Australian exports as shown and those on pages 899-900 since a slightly different factor was used by the International Wheat Council to convert flour to wheat equivalent.

Oats

This cereal is widely grown in all agricultural areas which have autumn, winter, and spring rainfall; it is tolerant of wet conditions and heavy soils. It has excellent feed value and produces a higher yielding crop than other winter cereals. It needs less cultivation, but requires ample fertilizer. Oats has a variety of uses—as a pasture plant when rough sown into stubble or heavy clover pastures, as silage if cut before maturity, as a hay crop when mown and baled or cut for chaff, or as a grain when stripped (the stubble then being grazed off). The grain is sold on a 'fair average quality' basis through voluntary pools in Victoria, South Australia and Western Australia.

Oats area, production and yield per acre

Oats is usually next in importance to wheat among the grain crops cultivated in Australia. However, while wheat grown for grain in 1964-65 accounted for 52 per cent of the area of all crops, oats grown for grain represented only 10 per cent. The area, production and yield per acre of oats in each State are shown below for the years 1960-61 to 1964-65 in comparison with the averages for the three-year periods ended 1938-39, 1948-49 and 1958-59.

**OATS FOR GRAIN: AREA, PRODUCTION AND YIELD PER ACRE
STATES AND A.C.T., 1936-37 TO 1964-65**

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	A.C.T.	Aust.
AREA ('000 ACRES)								
Average for three years ended—								
1938-39 .	297	478	8	338	425	26	..	1,572
1948-49 .	515	548	21	282	484	17	1	1,868
1958-59 .	756	735	29	445	1,178	20	..	3,163
Year—								
1960-61 .	917	835	19	512	1,330	23	1	3,637
1961-62 .	713	774	27	324	1,231	27	1	3,097
1962-63 .	708	932	27	416	1,177	31	1	3,292
1963-64 .	794	910	31	501	1,125	30	1	3,392
1964-65 .	850	966	55	444	1,152	28	1	3,497
PRODUCTION ('000 BUSHEL) (a)								
Average for three years ended—								
1938-39 .	4,065	4,781	65	2,575	4,159	810	6	16,461
1948-49 .	7,166	9,757	324	3,606	5,355	406	7	26,621
1958-59 .	12,619	14,140	547	7,911	15,606	409	10	51,242
Year—								
1960-61 .	21,466	20,666	285	11,478	21,810	391	11	76,107
1961-62 .	13,225	16,312	412	4,391	20,187	587	16	55,130
1962-63 .	16,035	27,042	545	5,770	18,572	828	17	68,809
1963-64 .	19,811	19,885	673	9,149	17,850	844	22	68,234
1964-65 .	22,885	22,446	1,171	8,977	14,011	521	32	70,043
YIELD PER ACRE (BUSHEL) (a)								
Average for three years ended—								
1938-39 .	13.7	10.0	8.1	7.6	9.8	3.1	24.3	10.5
1948-49 .	13.9	17.8	15.4	12.8	11.1	2.4	11.8	14.3
1958-59 .	16.7	19.2	18.9	17.8	13.3	20.5	22.5	16.2
Year—								
1960-61 .	23.5	24.7	15.0	22.4	16.4	16.8	20.9	20.9
1961-62 .	18.5	21.1	15.4	13.6	16.4	21.8	18.7	17.8
1962-63 .	22.7	29.0	20.0	13.9	15.8	26.6	25.6	20.9
1963-64 .	24.9	21.8	21.7	18.3	15.9	27.8	19.8	20.1
1964-65 .	26.9	23.2	21.1	20.2	12.2	18.5	21.6	20.0

(a) 40 lb. per bushel.

Graphs showing the area sown to oats and production of oats in Australia appear on pages 993 and 995 of Year Book No. 49, and a map showing the distribution of areas growing oats for grain throughout Australia in 1962-63 appears on page 1015 of Year Book No. 50. The area sown to oats from 1900-01 is shown in plate 52.

In 1964-65 the production of oats was 70,043,000 bushels, 16,862,000 bushels (19 per cent) below the record harvest of 86,905,000 bushels in 1958-59. The yield per acre in 1964-65 was 20.0 bushels, compared with the record yield of 21.9 bushels per acre established in 1958-59. The lowest yield recorded was 4.4 bushels per acre in the abnormally dry season of 1944-45.

Value of oat crop

The average wholesale price in the Melbourne market for oats of good milling quality was 7s. 8d. (\$0.77) a bushel in 1964-65, compared with 7s. 6d. (\$0.75) in 1963-64. The estimated gross value of the oat crop in each State for the 1964-65 season and the value per acre were as follows.

OATS: VALUE OF CROP, STATES AND A.C.T., 1964-65

—		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	A.C.T.	Aust.
Aggregate value	\$'000	18,766	16,237	1,005	5,044	9,888	478	31	51,449
Value per acre	\$	22.07	16.80	18.12	11.37	8.58	17.02	20.85	14.71

Exports of oats

The production of oats in Australia is sufficient to allow for an export trade which fluctuates with the incentive offered by overseas prices. The quantities and values of Australian-produced oats exported from Australia during the years 1960-61 to 1964-65 are shown below.

OATS: EXPORTS, AUSTRALIA, 1960-61 TO 1964-65

—		1960-61	1961-62	1962-63	1963-64	1964-65
Quantity	'000 bus.	19,005	19,064	17,744	16,673	20,161
Value	\$A'000 f.o.b.	13,707	14,957	14,152	12,623	15,616

In 1964-65 the principal countries of destination were the Federal Republic of Germany (9,946,000 bushels), China (Mainland) (2,311,000 bushels), Poland (1,283,000 bushels), the Netherlands (1,227,000 bushels), and Italy (1,151,000 bushels). Imports of oats into Australia are not recorded separately.

Oatmeal and other oat products

In 1964-65 the production of oatmeal was 12,517 tons for porridge and 26,810 tons for other purposes. This was equivalent to about 4,405,000 bushels of oats.

World production of oats

The world production of oats for the year 1964, according to figures issued by the United States Department of Agriculture, amounted to 2,910 million bushels, harvested from 75.8 million acres, resulting in an average yield of 38.4 bushels an acre. This compared with an estimated production in the previous year of 3,180 million bushels from an area of 78.4 million acres and an average yield of 40.6 bushels an acre.

Barley

This cereal contains two main groups of varieties, 2-row and 6-row. The former is generally, but not exclusively, preferred for malting purposes. Barley was formerly stubble-sown, but is now grown principally on pasture land worked up early in the year of sowing. In this way it forms an important phase in the rotation of the land. Like oats, it may also be sown for fodder production or for grain. When sown for fodder, sowing may take place either early or late in the season, as it has a short growing period. It may thus provide grazing or fodder supplies when other sources are not available. Barley grain may be crushed to meal for stock (especially pigs) or sold for malting.

Crops sown for malting purposes require well-worked, weed-free paddocks of even soil, and are thus restricted to specific districts. The main barley-growing areas in Australia are situated in South Australia (Murray-Mallee, Eyre and Yorke Peninsulas), but considerable quantities are grown also in New South Wales, Victoria, Queensland, and Western Australia.

Barley boards

The bulk of the barley crop in the various States is acquired and marketed by grower-controlled boards. Pooled returns from sales are distributed to growers at standard rates for the individual grades and varieties delivered. The Victorian and South Australian crops are marketed by the Australian Barley Board (a joint board established by the two State Governments), and the Queensland and Western Australian Barley Boards handle the crops of their respective States. Particulars of the proportion of barley production which was received by the Australian Barley Board (for Victoria and South Australia), together with details of quantity sold, advances and total payments to growers, are presented below.

**AUSTRALIAN BARLEY BOARD: BARLEY RECEIVED, SOLD, ETC.
1960-61 TO 1964-65**

Pool	Quantity received	Quantity sold(a)	Total advances made per bushel on 2-row No. 1 Grade less freight	Total net payments to growers
	'000 bushels	'000 bushels	\$	\$'000
No. 22 (1960-61 Crop)	44,624	44,680	0.9272	33,978
„ 23 (1961-62 „)	20,081	20,059	1.1607	19,414
„ 24 (1962-63 „)	17,195	17,285	1.1563	16,666
„ 25 (1963-64 „)	23,145	23,204	1.1862	22,446
„ 26 (1964-65 „)	25,465	25,267	b 1.1000	22,714

(a) Includes surplus or shortage in out-turn, except for No. 26 Pool for which the surplus has not yet been ascertained. (b) As at 31 January 1966. At that date it was estimated that the amount still to be paid to growers was 7.754 cents per bushel.

Barley area, production and yield per acre

There was a substantial increase in the area of barley sown for grain (particularly in Western Australia and Queensland) in the years up to 1960-61, and in that year the area sown reached the record level of 2,830,000 acres. However, the area sown in 1964-65, 2,064,000 acres, was 27 per cent less than the area in 1960-61. The production of barley for grain in 1964-65, 49,315,000 bushels, although 14 per cent more than production in 1963-64, was 27 per cent less than the record production of 67,970,000 bushels in 1960-61. The area, production and yield per acre of barley for grain in the several States for the years 1960-61 to 1964-65, compared with the averages for the three-year periods ended 1938-39, 1948-49 and 1958-59 are shown in the following table. Separate details for 2-row and 6-row varieties are shown for all States for 1964-65.

**BARLEY FOR GRAIN: AREA, PRODUCTION AND YIELD PER ACRE
STATES AND A.C.T., 1936-37 TO 1964-65**

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	A.C.T.	Aust.
AREA ('000 ACRES)								
Average for three years ended—								
1938-39 . . .	13	138	10	391	53	8	..	613
1948-49 . . .	23	166	18	587	65	7	..	866
1958-59 . . .	73	354	184	1,255	324	8	..	2,198
Year—								
1960-61 . . .	190	309	219	1,556	541	15	..	2,830
1961-62 . . .	201	225	177	1,271	490	19	..	2,383
1962-63 . . .	221	194	150	1,053	390	19	..	2,027
1963-64 . . .	211	190	176	1,123	299	14	..	2,013
1964-65—								
2-row . . .	148	177	203	1,053	58	15	..	1,655
6-row . . .	91	10	22	42	245	..	..	409
Total . . .	239	187	225	1,095	303	15	..	2,064

**BARLEY FOR GRAIN: AREA, PRODUCTION AND YIELD PER ACRE
STATES AND A.C.T., 1936-37 TO 1964-65—continued**

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	A.C.T.	Aust.
PRODUCTION ('000 BUSHELS)(a)								
Average for three years ended—								
1938-39	197	2,174	135	6,816	660	252	..	10,234
1948-49	316	3,149	375	11,964	748	194	..	16,746
1958-59	1,463	7,192	4,673	29,740	4,239	267	..	47,574
Year—								
1960-61	4,786	7,718	4,393	42,233	8,496	344	..	67,970
1961-62	4,137	4,654	3,532	21,292	7,282	607	..	41,504
1962-63	5,331	5,469	4,088	18,004	6,056	631	..	39,579
1963-64	5,351	4,025	5,191	24,337	4,077	414	..	43,395
1964-65—								
2-row	4,040	4,141	6,440	26,021	614	519	..	41,775
6-row	2,667	194	671	911	3,087	10	..	7,540
Total	6,707	4,335	7,111	26,932	3,701	529	..	49,315

YIELD PER ACRE (BUSHELS)(a)								
Average for three years ended—								
1938-39	15.2	15.7	13.5	17.4	12.5	31.5	52.3	16.7
1948-49	13.7	19.0	20.8	20.4	11.5	27.7	19.5	19.3
1958-59	20.0	20.3	25.4	23.7	13.1	33.4	..	20.7
Year—								
1960-61	25.3	25.0	20.0	27.1	15.7	22.5	..	24.0
1961-62	20.6	20.6	20.0	16.8	14.8	32.4	..	17.4
1962-63	24.2	28.1	27.3	17.1	15.5	31.9	..	19.5
1963-64	25.3	21.2	29.5	21.7	13.6	30.0	..	21.6
1964-65—								
2-row	27.3	23.4	31.7	24.7	10.6	34.3	..	25.2
6-row	29.4	20.0	30.0	21.8	12.6	29.0	..	18.4
Total	28.1	23.2	31.6	24.6	12.2	34.2	..	23.9

(a) 50 lb. per bushel.

For Australia, 80 per cent of the area of barley for grain in 1964-65 was sown with 2-row barley, while the remainder consisted of 6-row varieties. The proportion, however, varied considerably in the several States. The utilization of barley during the season ended November 1965 was as follows: exports, 16,360,000 bushels; malting and distilling, 13,000,000 bushels; pearl barley, 148,000 bushels; seed, 3,000,000 bushels.

The following table sets out the acreage and production of 2- and 6-row barley in Australia during the seasons 1960-61 to 1964-65 and the averages for the three years ended 1938-39, 1948-49 and 1958-59.

**BARLEY FOR GRAIN, 2- AND 6-ROW: AREA AND PRODUCTION
AUSTRALIA, 1936-37 TO 1964-65**

Period	Area (^{'000} acres)			Production (^{'000} bushels)(a)			Yield per acre (bushels)(a)		
	2-row	6-row	Total	2-row	6-row	Total	2-row	6-row	Total
Average for three years ended—									
1938-39	523	90	613	8,963	1,271	10,234	17.1	14.1	16.7
1948-49	769	97	866	15,142	1,604	16,746	19.7	16.5	19.3
1958-59	1,809	389	2,198	41,633	5,941	47,574	23.0	15.3	20.7
Year—									
1960-61	(b)2,157	(b) 658	2,830	b 55,691	b 11,935	67,970	(b) 25.8	(b) 18.1	24.0
1961-62	(b)1,777	(b) 587	2,383	b 31,739	(b) 9,158	41,504	(b) 17.9	(b) 15.6	17.4
1962-63	1,553	474	2,027	31,370	8,209	39,579	20.2	17.3	19.5
1963-64	1,621	392	2,013	36,464	6,931	43,395	22.5	17.7	21.6
1964-65	1,655	409	2,064	41,775	7,540	49,315	25.2	18.4	23.9

(a) 50 lb. per bushel. (b) Excludes Tasmania.

A graph showing the production of barley in Australia since 1935-36 appears on page 995 of Year Book No. 49, and a map showing the distribution of barley growing areas throughout Australia in 1962-63 appears on page 1014 of Year Book No. 50.

Value of barley crop

The average wholesale price for 2-row English malting barley in the Melbourne market was 14s. 8d. (\$1.47) a bushel in 1964-65, compared with 15s. 1d. (\$1.51) in 1963-64. The estimated gross value of the barley crop in each State for the 1964-65 season and the value per acre are shown in the following table.

BARLEY FOR GRAIN: VALUE OF CROP, STATES, 1964-65

—		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Aggregate value.	\$'000	8,294	4,828	7,688	30,135	3,939	736	55,620
Value per acre	\$	34.71	25.83	34.12	27.53	13.02	47.55	26.95

Exports of barley

South Australia was the principal exporting State in 1964-65, and Japan, Italy, the Netherlands, the United Kingdom, and the Federal Republic of Germany were the principal countries to which barley was shipped. Particulars of exports of Australian produced barley for the years 1960-61 to 1964-65 are shown in the following table.

BARLEY: EXPORTS, AUSTRALIA, 1960-61 TO 1964-65

—		1960-61	1961-62	1962-63	1963-64	1964-65
Quantity	'000 bus.	33,900	31,435	10,322	17,756	16,281
Value	\$.A.'000 f.o.b.	28,657	29,908	10,458	18,298	18,002

In addition to exports of barley grain, there are also exports of Australian pearl and Scotch barley, the total for 1964-65 amounting to 496,424 lb., valued at \$17,032, the main country of consignment being Malaysia. Imports of barley into Australia are not recorded separately, but are considered to be negligible.

Barley malt

Details of the quantity of grain used and the production of barley malt in the years 1960-61 to 1964-65 are given in the following table.

BARLEY MALT: GRAIN USED AND MALT PRODUCED, AUSTRALIA
1960-61 TO 1964-65

—		1960-61	1961-62	1962-63	1963-64	1964-65
Grain used	'000 bus.(a)	9,090	10,445	10,229	12,036	11,802
Malt produced	'000 bus.(b)	9,015	10,207	10,429	11,988	12,127

(a) 50 lb. per bushel.

(b) 40 lb. per bushel.

Since 1952-53 the production of malt in Australia has been sufficient to meet local requirements and to provide a margin for export. Exports of Australian produce amounting to 4,076,000 bushels (value \$7,808,000) and 4,058,000 bushels (value \$7,842,000) were recorded in 1963-64 and 1964-65 respectively.

World production of barley

In comparison with the barley production of other countries that of Australia is extremely small. The main producers in 1964 were the Union of Socialist Soviet Republics, the United States of America and the United Kingdom. China is also normally a major producer, but details for 1964 are not available. Australian production in that year was approximately 1 per cent of the world total.

According to estimates made by the United States Department of Agriculture, world production of barley in the year 1964 amounted to 4,080 million bushels harvested from 156.8 million acres, equivalent to a yield per acre of 26.0 bushels. This compared with the production of 4,075 million bushels in the previous year from 162.1 million acres, and a yield per acre of 25.1 bushels.

Sorghum

Grain sorghum is a summer-growing annual palatable to stock, and more drought- and frost-resistant than maize. It requires a summer rainfall. The growing of this crop for grain on an extensive scale is a comparatively recent development in Australia, and, as with other cereals, operations are highly mechanized.

The climatic conditions of Queensland and northern New South Wales are particularly suited to the growing of sorghum, and development has so far been restricted mainly to these areas, more particularly to Queensland. The grain produced is fed to livestock and has become an important source for supplementing other coarse grains for this purpose. Other sorghums are grown in Australia mainly as green fodder, hay and silage (sweet sorghums and Sudan grass) and for the production of brush for broom manufacture (broom millet). In Queensland the growing of grain sorghum is concentrated in the Burnett, Dawson-Callide areas and in the central highlands. In New South Wales the north western slopes and Murrumbidgee Irrigation Area are the main areas. This crop is also suitable for the semi-tropical areas of the Northern Territory and the Kimberleys.

Particulars of the area and production of sorghum grown for grain in recent years are given in the following table.

**GRAIN SORGHUM: AREA, PRODUCTION AND YIELD PER ACRE, STATES
1960-61 TO 1964-65**

Year	Area			Production(a)			Yield per acre(a)		
	N.S.W.	Qld	Aust. (b)	N.S.W.	Qld	Aust. (b)	N.S.W.	Qld	Aust. (b)
	acres	acres	acres	'000 bushels	'000 bushels	'000 bushels	bushels	bushels	bushels
1960-61 .	41,145	213,761	255,109	577	5,418	5,996	14.0	25.3	23.5
1961-62 .	70,134	292,397	362,666	1,308	8,054	9,361	18.6	27.5	25.8
1962-63 .	80,255	311,068	391,334	1,891	8,361	10,252	23.6	26.9	26.2
1963-64 .	61,203	303,857	365,708	1,269	6,612	7,889	20.7	21.8	21.6
1964-65 .	51,699	292,769	345,737	1,270	5,883	7,164	24.6	20.1	20.7

(a) 60 lb. per bushel. Production in New South Wales and Queensland harvested from crop sown in previous year. (b) Includes small areas sown and quantities produced in other States.

Maize

Like sorghum, maize is a summer cereal demanding specific soil and climatic conditions. For grain, it is grown almost entirely in the south-east and Atherton Tablelands of Queensland and the north coast and northern tablelands of New South Wales. On the Atherton Tablelands in Queensland, and generally in New South Wales and Victoria, it provides a stock feed for dairy cattle, fat stock and pigs. In times of drought it is used also as a sheep feed. In all States except South Australia, however, this crop is grown to some extent for green fodder and silage, particularly in connection with the dairying industry. There is practically no difference between grain and fodder varieties.

There has been a considerable increase in recent years in the growing of maize from hybrid strains of seed. Varieties have been developed which are capable of producing yields per acre considerably in excess of the older open pollinated types. The expansion in areas sown to hybrid maize has led to a parallel development in the specialized industry of growing hybrid strains for seed.

Maize area, production and yield per acre

The area, production and yield per acre of maize for grain in each State for the years 1960-61 to 1964-65 compared with the averages for the three-year periods ended 1938-39, 1948-49 and 1958-59 are given in the following table. Separate details for hybrid and other varieties are shown for all States except Western Australia for 1964-65.

**MAIZE FOR GRAIN: AREA, PRODUCTION AND YIELD PER ACRE
STATES AND A.C.T., 1936-37 TO 1964-65**

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	A.C.T.	Aust.
AREA (ACRES)								
Average for three years ended—								
1938-39 . . .	121,178	19,826	179,641	20	16	..	6	320,687
1948-49 . . .	91,612	7,511	122,263	1	87	6	1	221,481
1958-59 . . .	57,662	3,629	120,417	(a)	13	1	2	(b)181,724
Year—								
1960-61 . . .	49,269	2,985	132,382	(a)	6	..	..	(b)184,642
1961-62 . . .	51,434	3,309	155,780	..	17	..	..	210,540
1962-63 . . .	46,537	3,634	159,285	(a)	34	..	..	(b)209,490
1963-64 . . .	44,679	3,399	166,598	(a)	85	..	..	(b)214,761
1964-65—								
Hybrid . . .	36,655	2,148	137,688	..	(c)	..	..	(b)176,491
Other . . .	5,005	205	30,612	..	10	..	..	35,832
Total . . .	41,660	2,353	168,300	..	10	..	..	212,323

PRODUCTION ('000 BUSHEL)(d)								
Average for three years ended—								
1938-39 . . .	3,204	665	3,170	1	..	..	..	7,040
1948-49 . . .	2,446	314	2,960	..	1	..	..	5,721
1958-59 . . .	2,347	175	3,428	(a)	..	..	..	(b) 5,950
Year—								
1960-61 . . .	2,227	171	3,847	(a)	..	..	..	(b) 6,245
1961-62 . . .	2,349	192	4,766	..	..	..	..	7,307
1962-63 . . .	2,145	216	5,096	(a)	..	..	..	(b) 7,457
1963-64 . . .	2,089	204	4,427	(a)	2	..	..	(b) 6,722
1964-65—								
Hybrid . . .	1,699	108	4,089	..	..	..	..	5,896
Other . . .	179	6	798	..	..	..	..	983
Total . . .	1,878	114	4,887	..	..	..	..	6,879

YIELD PER ACRE (BUSHEL)(d)								
Average for three years ended—								
1938-39 . . .	26.4	33.5	17.6	43.7	12.3	..	10.2	22.0
1948-49 . . .	26.7	41.8	24.2	6.7	7.2	14.8	13.7	25.8
1958-59 . . .	40.7	48.2	28.5	(a)	16.8	30.0	..	(b) 32.7
Year—								
1960-61 . . .	45.2	57.3	29.1	(a)	1.0	..	..	(b) 33.8
1961-62 . . .	45.7	58.0	30.6	..	21.9	..	..	34.7
1962-63 . . .	46.1	59.5	32.0	(a)	12.2	..	..	(b) 35.6
1963-64 . . .	46.8	59.8	26.6	(a)	18.5	..	..	(b) 31.3
1964-65—								
Hybrid . . .	46.4	50.2	29.7	..	(c)	..	..	(b) 33.4
Other . . .	35.7	30.6	26.1	..	15.6	..	..	27.4
Total . . .	45.1	48.5	29.0	..	15.6	..	..	32.4

(a) Not available for publication. (b) Incomplete. (c) Included in Other maize. (d) 56 lb. per bushel. Production in New South Wales and Queensland harvested from crop sown in previous year.

The average yield for Australia for the five-year period ended 1964-65 was 33.5 bushels per acre. Among principal producing countries, the United States of America averaged 62.1 bushels per acre and the U.S.S.R. 28.6 bushels for 1964.

Value of maize crop

The average wholesale price of maize in the Melbourne market in 1964-65 was 18s. 11d. (\$1.89) a bushel compared with 18s. 9d. (\$1.88) in 1963-64. The estimated gross value of the crop in each State for the 1964-65 season and the value per acre were as follows.

MAIZE FOR GRAIN: VALUE OF CROP, STATES, 1964-65

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Aggregate value . . . \$'000	2,949	213	6,837	..	..	..	9,999
Value per acre . . . \$	70.79	90.52	40.62	..	..	..	47.09

Exports of maize and maize products

Exports of Australian-produced maize for the years 1960-61 to 1964-65 are shown hereunder.

MAIZE: EXPORTS, AUSTRALIA, 1960-61 TO 1964-65

	1960-61	1961-62	1962-63	1963-64	1964-65
Quantity '000 bus.	3	2	552	14	20
Value \$A'000 f.o.b.	8	6	480	27	42

The increase in exports of maize in 1962-63 was due principally to the shipment of 474,000 bushels to Japan, a country to which there had been no previous exports. Imports of maize into Australia are not recorded separately, but are considered to be negligible.

World production of maize

According to figures issued by the United States Department of Agriculture, world production of maize in the year 1964 amounted to 7,735 million bushels, harvested from 244 million acres, giving an average yield per acre of 31.7 bushels. This compared with production in the previous year of 8,030 million bushels from 245 million acres, and an average yield of 32.7 bushels per acre.

The United States of America is the most important maize-producing country in the world, and during the three years ended 1964 the area sown to maize in that country averaged 58 million acres or 24 per cent. of the world total. During the same period production averaged 3,759 million bushels or 49 per cent. of the world total.

Rice

The principal rice-growing areas of the world are confined almost entirely to Asia, although limited quantities are grown in other countries. In Australia rice was first cultivated at the Yanco Experimental Farm in New South Wales, but it was not grown commercially until 1924-25, when 16,240 bushels were produced from 153 acres. Favoured by high average yields and protected by tariff, rice culture made rapid progress in the Murrumbidgee Irrigation Area until local requirements were met and a surplus became available for export. The acreage sown in this area is controlled, as the quantity of water available is limited.

Until recent years rice-growing in Australia was practically confined to the Murrumbidgee Irrigation Area in New South Wales. However, there is now some experimental rice-growing in Western Australia and the Northern Territory, but particulars are not available for publication. Small quantities have also been produced in Queensland in some years. The bulk of Australia's exports of rice in 1964-65 was shipped to Papua and New Guinea, the Pacific Islands and the United Kingdom. Details relating to area, production, and Australian-produced exports for the years 1960-61 to 1964-65 are shown in the following table.

RICE: AREA, PRODUCTION AND EXPORTS, AUSTRALIA(a)
1960-61 TO 1964-65

Year	No. of holdings growing rice(b)	Area	Production (paddy rice)		Average yield (paddy) per acre	Exports(c)	
			Quantity	Gross value(d)		Un-cleaned	Cleaned
		acres	'000 bushels (e)	\$'000	bushels (e)	cwt.	cwt.
1960-61	787	46,117	6,001	8,250	130.1	359,440	876,175
1961-62	878	50,185	7,045	7,664	140.4	280,540	748,920
1962-63	956	54,929	7,129	7,676	129.8	239,820	905,580
1963-64	1,033	59,398	7,455	7,912	125.5	198,820	918,340
1964-65	1,074	61,617	8,030	8,529	130.3	216,240	1,058,080

(a) Particulars of area and production for Western Australia and the Northern Territory are not available for publication, and are excluded. (b) Twenty acres or more in area. (c) Imports into Australia are not recorded separately, but are considered to be negligible. (d) Excludes the value of straw. (e) 42 lb. per bushel.

Fodder crops

Hay

Because of the comparatively unreliable nature of rainfall in Australian agricultural and pastoral areas, hay as a fodder crop occupies a position of importance. In 1964-65 hay represented 8 per cent of the total area of crops. Up to 1946-47 hay, in terms of area, was second only to wheat for grain, but in more recent years it has been supplanted by green fodder (for feeding-off) and oats for grain. Hay is generally considered to include cereal hay, meadow hay and lucerne hay. Cereal crops cut early for hay contain a higher level of protein than those cut late.

In most European countries hay is made almost entirely from meadow pastures, but in Australia a very large proportion is made from cereals and lucerne, the hay being stored loose, in sheaves or baled. Because of its bulk, hay is usually produced for individual or local use, except in times of drought, when large inter-regional transfers may take place. Meadow hay requires greater care in preparation than cereal hay. Baling must be spaced carefully behind mowing to ensure that the bales are dry enough to prevent moulding, but not so dry as to result in excessive leaf loss. The leaves contain the bulk of the protein. Lucerne hay requires similar attention.

The area, production and yield per acre of hay of all kinds in the several States during the years 1960-61 to 1964-65 and the averages for the three-year periods ended 1938-39, 1948-49 and 1958-59 are shown below.

**HAY: AREA, PRODUCTION AND YIELD PER ACRE, STATES AND TERRITORIES
1936-37 TO 1964-65**

Season	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
AREA ('000 ACRES)									
Average for three years ended—									
1938-39 .	859	1,122	67	540	439	81	..	3	3,111
1948-49 .	516	642	66	287	245	93	..	3	1,852
1958-59 .	556	978	64	336	305	129	..	4	2,372
Year—									
1960-61 .	750	1,286	84	393	284	171	1	4	2,973
1961-62 .	594	922	95	209	294	157	1	2	2,274
1962-63 .	587	1,251	87	287	340	165	1	2	2,720
1963-64 .	584	1,138	80	358	289	150	1	2	2,602
1964-65 .	600	1,306	82	314	305	180	1	3	2,793
PRODUCTION ('000 TONS)									
Average for three years ended—									
1938-39 .	975	1,181	94	591	434	120	..	3	3,398
1948-49 .	618	987	119	396	275	153	..	4	2,552
1958-59 .	752	1,712	129	476	377	248	..	7	3,701
Year—									
1960-61 .	1,243	2,338	167	616	380	326	1	8	5,079
1961-62 .	923	1,585	212	286	396	286	..	5	3,693
1962-63 .	965	2,376	197	406	453	313	1	6	4,717
1963-64 .	1,006	1,947	184	488	389	249	1	5	4,269
1964-65 .	1,040	2,506	167	487	390	365	1	7	4,963
YIELD PER ACRE (TONS)									
Average for three years ended—									
1938-39 .	1.14	1.05	1.40	1.09	0.99	1.48	..	1.00	1.09
1948-49 .	1.20	1.54	1.80	1.38	1.12	1.65	..	1.33	1.38
1958-59 .	1.35	1.75	2.02	1.42	1.24	1.92	0.54	1.75	1.56
Year—									
1960-61 .	1.66	1.82	1.98	1.57	1.34	1.91	0.78	2.12	1.71
1961-62 .	1.55	1.72	2.22	1.37	1.35	1.82	0.76	2.18	1.62
1962-63 .	1.64	1.90	2.27	1.41	1.33	1.89	1.21	2.38	1.73
1963-64 .	1.72	1.71	2.30	1.37	1.35	1.67	1.02	1.71	1.64
1964-65 .	1.73	1.92	2.19	1.55	1.28	2.02	1.11	1.99	1.78

Plate 52 shows the area under hay since 1900-01.

Information regarding areas cut for hay and varieties grown in 1964-65 is given in the following table.

**HAY: AREA OF VARIOUS KINDS GROWN, STATES AND TERRITORIES
1964-65
(Acres)**

State or Territory	Oaten	Lucerne	Wheaten	Other	Total
New South Wales	65,832	179,877	61,529	292,583	599,821
Victoria	163,101	80,391	23,221	1,039,653	1,306,366
Queensland	5,896	57,759	3,410	15,354	82,419
South Australia	110,128	43,631	39,777	120,782	314,318
Western Australia	120,993	1,570	38,869	143,178	304,610
Tasmania	13,575	1,151	233	165,297	180,256
Northern Territory . . . . .	..	..	..	1,280	1,280
Australian Capital Territory	461	1,390	114	1,504	3,469
Australia	479,986	365,769	167,153	1,779,631	2,792,539

For all States and the Territories combined, the proportions of the areas sown to the principal kinds of hay in 1964-65 were 17.2 per cent for oaten, 13.1 per cent for lucerne, 6.0 per cent for wheaten, and 63.7 per cent for other hay.

The following table shows the estimated gross value, and the value per acre, of the hay crop of the several States for the 1964-65 season.

HAY: VALUE OF CROP, STATES AND A.C.T., 1964-65

—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	A.C.T.	Aust.
Aggregate value . \$'000	25,400	44,063	7,265	8,336	9,287	4,654	154	(a)99,209
Value per acre . \$	42.35	33.73	88.15	26.52	30.49	25.82	44.39	35.53

(a) Includes \$50,000 in the Northern Territory.

Farm stocks of hay

Particulars of stocks of hay held on farms at 31 March for the years 1961 to 1965 are given in the table below.

**STOCKS OF HAY HELD ON FARMS, STATES AND A.C.T.
1961 TO 1965
(Tons)**

At 31 March—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	A.C.T.	Aust.(a)
1961 .	1,704,486	2,640,249	155,209	648,267	258,859	327,696	12,338	5,747,104
1962 .	1,775,977	1,847,725	231,335	496,564	254,377	305,108	12,241	4,923,327
1963 .	1,609,639	2,197,725	194,948	470,202	273,500	333,650	6,896	5,086,560
1964 .	1,610,063	1,911,475	179,422	547,354	274,812	276,650	5,085	4,804,861
1965 .	1,586,969	2,402,299	145,737	614,451	275,948	414,415	7,606	5,447,425

(a) Excludes the Northern Territory, for which particulars are not available.

Under normal conditions, hay, whether whole or in the form of chaff, is somewhat bulky for oversea trade, and consequently does not figure largely among Australian exports. During 1964-65 exports amounting to 4,174 tons, valued at \$171,434, were made, principally to Malaysia, Kuwait and Hong Kong. There were no imports of hay in 1964-65.

Green fodder

Considerable areas are devoted to the growing of green fodder, usually as an adjunct to cereal operations or as a minor crop in irrigation areas. The areas recorded in respect of green fodder include areas of crops cut for feeding to live stock as green fodder or ensilage, together

with areas fed off to stock as green forage. Statistics of green fodder exclude areas which may have been sown with the intention of harvesting for grain, but which, owing to adverse conditions, showed no promise of producing grain or even hay and were fed off to livestock. The principal crops cut for green fodder are oats, wheat and lucerne, while small quantities of barley, sorghum, maize, rye, and sugar cane are also used in this way. In 1964-65 the area under green fodder (5,613,527 acres) consisted of lucerne (2,424,815 acres), oats (2,321,730 acres), wheat (173,348 acres), barley (139,345 acres), sorghum (120,853 acres), maize (28,779 acres), rye (21,471 acres), sugar cane (2,404 acres), and other crops (380,782 acres). Particulars concerning the area of green fodder in the several States during each of the years 1960-61 to 1964-65 are given in the following table.

GREEN FODDER: AREA, STATES AND TERRITORIES, 1960-61 TO 1964-65
(’000 acres)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1960-61	1,691	431	875	744	606	60	..	1	4,408
1961-62	1,830	539	865	787	622	57	1	1	4,702
1962-63	1,900	478	912	928	668	65	..	1	4,952
1963-64	1,974	431	1,011	972	417	71	..	1	4,877
1964-65	2,397	454	1,111	1,135	446	67	1	1	5,614

In the 1964-65 season green fodder ranked second to wheat in area of crops throughout Australia. A graph showing the area sown to green fodder appears on plate 52. The value of these crops is variously estimated in the several States, but the Australian total, excluding Western Australia, may be taken as approximately \$21,000,000 for the 1963-64 season and \$25,000,000 for the 1964-65 season.

Ensilage

Ensilage is produced from herbage compacted tightly to exclude air and kept from contact with air and extraneous moisture to avoid moulding. Fermentation results in a dark mass of high protein and lactic acid content. Molasses may be added to hasten fermentation. Ensilage may be stored in pits or stacks or in constructed silos.

The several State Governments devote a considerable amount of attention to the education of the farming community with regard to the value of ensilage. Monetary aid is afforded in the erection of silos, and expert advice is supplied in connection with the design of the silos and the cutting and packing of the ensilage. Information regarding production and farm stocks of ensilage for the years ended 31 March 1961 to 1965 is given in the following table.

ENSILAGE: PRODUCTION AND FARM STOCKS, STATES AND A.C.T.
1960-61 TO 1964-65

(Tons)

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	A.C.T.	Aust.
Production during—								
1960-61 season	256,459	303,198	51,198	100,727	50,911	72,344	80	834,917
1961-62	196,625	261,884	73,838	52,451	51,364	77,781	700	714,643
1962-63	210,653	295,914	63,489	64,206	48,806	68,117	290	751,475
1963-64	222,126	252,837	53,160	88,183	37,238	43,760	270	697,574
1964-65	182,063	250,997	34,440	78,709	26,798	54,438	400	627,845
Farm stocks at—								
31 March 1961	499,244	231,315	117,749	79,269	43,518	46,570	80	1,017,745
" " 1962	567,801	181,383	139,788	68,614	37,224	60,157	1,305	1,056,272
" " 1963	602,585	263,440	146,286	63,315	37,415	61,110	1,768	1,175,919
" " 1964	565,457	185,115	139,691	78,997	29,709	43,554	1,108	1,043,631
" " 1965	534,730	206,304	112,596	86,093	24,160	49,668	892	1,014,443

Sugar cane

The growing of sugar cane is restricted to those coastal areas in Queensland and northern New South Wales which have suitable climatic and soil conditions. Considerable areas in more southern coastal districts of New South Wales previously devoted to this crop are now used for dairying owing to the uncertainty of rainfall.

The Bureau of Sugar Experiment Stations in Queensland and the Colonial Sugar Refining Company Limited render useful service to the sugar industry by advocating and demonstrating better methods of cultivation and the more scientific use of fertilizers, lime, etc., and by producing and distributing improved varieties of cane. In common with these two organizations, Sugar Research Ltd., of Mackay, undertakes technological research in raw sugar milling practices.

Sugar agreements and marketing arrangements in Australia

In Year Book No. 37, pages 940-1, a summary is given of the agreement operating between the Commonwealth and Queensland Governments in respect of the sugar industry in Australia. Briefly, the agreement places an embargo on sugar importations and fixes the price of sugar consumed in Australia. The current agreement is for the period from 1 September 1961 to 31 August 1967. The Commonwealth Government appointed a Committee of Enquiry in 1960 to investigate all facets of the sugar and canned fruits industries. The Committee presented its report, publication of which was restricted to a summary of conclusions and recommendations, in 1961. There was no variation of the consequent agreement.

Production of sugar is regulated under the terms of the agreement. At the mill level control is exerted by means of seasonal 'mill peaks' in respect of Queensland mills and a proportionate allowance for New South Wales mills. The combined total equals the estimated requirements of the domestic and export markets. Farm production is regulated according to the limit on the mill which the farm supplies. Up to the end of 1961 exports were limited by the export quota provisions of the International Sugar Agreement, but these provisions have not been operative since then (*see below*).

The Queensland Government acquires the whole of the sugar production of that State and of New South Wales by legislation and private agreement respectively. The net proceeds of all sugar sold are pooled and a uniform price paid to mills. In 1963 a Queensland Government Committee of Enquiry recommended that the industry should expand production to 2.26 million tons (of 94 net titre sugar) by 1965-66, of which New South Wales might produce 132,000 tons. This recommendation has been implemented, although seasonal conditions have so far prevented the attainment of the target.

International Sugar Agreement

The International Sugar Agreement of 1937 was superseded by the International Sugar Agreements of 1953 and 1958. Details of the 1937 and 1953 Agreements were given in Year Books No. 40, pages 881-2, and No. 48, page 936, respectively. The 1958 Agreement, which came into operation on 1 January 1959, established basic export quotas for exporting countries. The British Commonwealth was allocated a total quota, the distribution of which remained a matter for internal arrangement by the countries and territories concerned (*see below*). The Australian quota for 1960 and 1961 was approximately 651,000 tons per annum.

The quota and price provisions of the International Sugar Agreement were subject to review before 31 December 1961. A conference in Geneva in 1961 failed to reach agreement on quota provisions for 1962 and 1963. The conference adjourned with a resolution that it be reconvened if circumstances became favourable for an agreement on quotas. The principal practical effect of the adjournment of the 1961 conference was that former export limitations on participating exporting countries, including Australia, did not apply until such time as agreement on this question was again reached at a resumed session of that conference or at a newly convened conference.

The question of convening a United Nations conference to consider re-introduction of an agreement with quota provisions was deferred at a meeting of the International Sugar Council in April 1963. The 1958 Agreement, in its restricted form, was extended by protocol until 31 December 1965.

A United Nations conference was convened at Geneva in September 1965. The conference did not negotiate a new Agreement but extended the 1958 Agreement, in its currently restricted form, until 31 December 1966. Arrangements for a second session of the conference are being negotiated.

British Commonwealth Sugar Agreement

On 1 January 1953 the British Commonwealth Sugar Agreement became effective. This agreement, which has been extended to 1973, provides for Australia to export to preferential markets a maximum of 600,000 tons per annum. Of the 600,000 tons, 335,000 tons are purchased by the United Kingdom Government at a regularly negotiated price and the balance is sold at world market prices plus tariff preferences where applicable. The negotiated price of £Stg.42 a ton bulk f.o.b. and stowed payable for Australian raws in 1965 has been increased to £Stg.43 10s. a ton for 1966, 1967 and 1968.

Fruit Industry Sugar Concession Committee and sugar rebates

The Fruit Industry Sugar Concession Committee was established by agreement between the Commonwealth and Queensland Governments and administers a fund contributed by the Queensland Government on behalf of the sugar industry.

Until 15 May 1960 a rebate of £2 4s. (\$4.40) a ton of refined sugar used in processing approved fruit products was paid to Australian manufacturers, provided they bought the fresh fruit at prices not lower than those declared by the Committee as reasonable. This was increased to £5 (\$10) a ton from 16 May 1960.

An export sugar rebate is also paid by the Committee to exporters of approved fruit products to ensure that manufacturers do not pay higher prices for the Australian sugar content than the price for which the cheapest imported sugar could be landed duty free in Australia. The Queensland Government is responsible for payment of a similar rebate to exporters of other approved products. Payment of the export sugar rebate in respect of approved fruit products has been made conditional upon such fruit having been purchased at not less than the prices (if any) which the Committee has declared to be reasonable at the time of purchase.

Under the Sugar Agreement for 1961-67 the Queensland Government contributes to the fund \$528,000 annually, reimburses the Committee for the actual expenditure on export sugar rebates, and, by a supplementary agreement operating from 1 September 1962, pays the Committee an additional sum equal to the amount payable by way of domestic sugar rebate in respect of the products exported. Any money remaining in the fund after the payment of rebates and administrative expenses may be used by the Committee for the promotion of the use and sale of fruit products, or for research for the purpose of increasing the yield per acre of Australian fruit, or of obtaining information regarding Australian fresh marketable fruits.

Bulk handling of sugar

The total conversion of the Australian sugar industry to bulk handling and mechanized loading and unloading of raw sugar has now been accomplished, except for the operation of a bagging station specially provided at Townsville to meet the needs of a few oversea customers. Terminals for the bulk loading of sugar were opened at Mackay in 1957, at Lucinda and Bundaberg in 1958, at Townsville in 1959, at Mourilyan in 1960, and at Cairns in 1964. A second storage shed at Bundaberg, a third shed at Mackay and second sheds at Lucinda and Townsville have been opened subsequently. The comparatively small New South Wales sugar industry was converted to bulk handling in 1954. Bulk receiving facilities are in operation at all Australian refineries.

Area of sugar cane

A brief outline of the development of the industry was included in earlier issues of the Year Book (see No. 38, page 985). The area of sugar cane in Australia for the seasons 1960-61 to 1964-65 and the averages for the three-year periods ended 1938-39, 1948-49 and 1958-59 are shown in the following table. The areas shown in the table do not include the small acreage cut for green fodder, which in 1964-65 amounted to 2,404 acres. The whole area planted is not cut for crushing during any one season, there being always a considerable amount of young and 'stand-over' cane as well as a small quantity required for plants.

SUGAR CANE: AREA(a), STATES, 1936-37 TO 1964-65

(Acres)

Period	New South Wales			Queensland			Australia			Total
	Area crushed	Area of stand-over and newly-planted cane	Area cut for plants	Area crushed	Area of stand-over and newly-planted cane	Area cut for plants	Area crushed	Area of stand-over and newly-planted cane	Area cut for plants	
Average for three years ended—										
1938-39	10,468	10,366	n.a.	247,632	89,690	n.a.	258,100	100,056	n.a.	n.a.
1948-49	7,687	8,666	338	230,905	90,448	12,891	238,592	99,114	13,229	350,935
1958-59	11,094	9,462	619	360,709	110,786	12,596	371,803	120,248	13,215	505,266
Year—										
1960-61	13,657	11,385	568	327,246	110,704	11,574	340,903	122,089	12,142	475,134
1961-62	14,655	11,299	482	372,223	87,831	12,339	386,878	99,130	12,821	498,829
1962-63	14,109	12,656	495	387,477	80,438	11,313	401,586	93,094	11,808	506,488
1963-64	15,508	14,204	594	402,060	93,149	13,205	417,568	107,353	13,799	538,720
1964-65	19,429	17,043	728	450,956	126,906	12,896	470,385	143,949	13,624	627,958

(a) Excludes areas cut for green fodder.

Production of cane and sugar

The production of sugar cane in 1964-65 was at the record level of 15.1 million tons, which was 18.3 per cent above the previous record production in 1962-63. A graph showing the production of sugar appears on page 995 of Year Book No. 49.

In the following table production data relating to cane and raw sugar are shown for the seasons 1960-61 to 1964-65 together with averages for the three-year periods ended 1938-39, 1948-49 and 1958-59.

**SUGAR CANE: PRODUCTION OF CANE AND RAW SUGAR, STATES
1936-37 TO 1964-65**

(Tons)

Period	New South Wales		Queensland		Australia	
	Cane	Sugar(a)	Cane	Sugar(a)	Cane	Sugar(a)
Average for three years ended—						
1938-39 .	324,531	43,419	5,215,217	760,994	5,539,748	804,413
1948-49 .	283,613	35,444	4,767,291	700,053	5,050,904	735,497
1958-59 .	356,324	43,881	9,221,497	1,260,564	9,577,821	1,304,445
Year—						
1960-61 .	480,147	62,978	8,685,426	1,319,633	9,165,573	1,382,611
1961-62 .	555,858	67,448	9,020,734	1,315,393	9,576,592	1,382,841
1962-63 .	637,310	79,733	12,098,582	1,770,084	12,735,892	1,849,817
1963-64 .	617,402	75,980	11,500,672	1,648,273	12,118,074	1,724,253
1964-65 .	784,126	95,195	14,286,350	1,854,883	15,070,476	1,950,078

(a) Raw sugar at 94 net titre.

Owing to climatic variations the crop in New South Wales matures in from twenty to twenty-four months, whereas in Queensland a period of from twelve to sixteen months is sufficient. The average yields of cane and sugar per acre for the years 1960-61 to 1964-65 and for the three-year periods ended 1938-39, 1948-49 and 1958-59 are shown below. Allowance should be made in interpreting these figures for the disparity in maturing periods noted above.

SUGAR CANE AND SUGAR: YIELD PER ACRE, STATES, 1936-37 TO 1964-65

(Tons)

Period	New South Wales			Queensland			Australia		
	Cane per acre crushed	Sugar per acre crushed	Cane to each ton of sugar	Cane per acre crushed	Sugar per acre crushed	Cane to each ton of sugar	Cane per acre crushed	Sugar per acre crushed	Cane to each ton of sugar
Average for three years ended—									
1938-39 . . .	31.00	4.15	7.47	21.06	3.07	6.85	21.46	3.12	6.89
1948-49 . . .	36.90	4.61	8.00	20.65	3.03	6.81	21.17	3.08	6.87
1958-59 . . .	32.12	3.96	8.12	25.57	3.49	7.32	25.76	3.52	7.34
Year—									
1960-61 . . .	35.16	4.61	7.62	26.54	4.03	6.58	26.89	4.06	6.63
1961-62 . . .	37.93	4.60	8.24	24.23	3.53	6.86	24.75	3.57	6.93
1962-63 . . .	45.17	5.65	7.99	31.22	4.57	6.84	31.71	4.61	6.88
1963-64 . . .	39.81	4.90	8.13	28.60	4.10	6.98	29.02	4.13	7.03
1964-65 . . .	40.36	4.90	8.24	31.68	4.11	7.70	32.04	4.15	7.73

Production and utilization of sugar

Details of the production and utilization of sugar for the years 1960-61 to 1964-65 are shown below. Consumption is shown in terms of refined sugar, including that consumed in manufactured products.

SUGAR: PRODUCTION AND UTILIZATION, AUSTRALIA
1960-61 TO 1964-65

Year	Changes in stocks(a)	Production (raw)	Exports (b)	Miscel- laneous uses(c)	Consumption in Australia(d)	
					Total	Per head
	'000 tons	'000 tons	'000 tons	'000 tons	'000 tons	lb.
1960-61 . . .	— 10.3	1,324.8	815.6	21.0	498.5	107.4
1961-62 . . .	— 4.8	1,404.2	862.5	18.0	528.5	111.6
1962-63 . . .	+111.9	1,831.6	1,175.8	17.8	526.1	109.0
1963-64 . . .	— 65.3	1,648.7	1,156.0	21.3	536.7	109.0
1964-65 . . .	— 6.6	1,880.0	1,308.1	24.2	554.3	110.4

(a) Includes allowance for estimated sugar content of imported foodstuffs. (b) Includes sugar content of manufactured products exported. (c) Includes refining losses and quantities used in golden syrup and treacle. (d) Includes sugar content of manufactured products consumed.

The quantity of refined sugar used in factories in 1964-65 amounted to 359,690 tons compared with 339,507 tons in 1963-64 and 351,973 tons in 1962-63. Particulars of sugar used in establishments not classified as factories are not available, and consequently these quantities are deficient to that extent. In 1964-65 consumption by factories engaged in the production of jams, jellies and preserved and dried fruit amounted to 72,809 tons, by those producing confectionery, ice cream, etc. to 69,632 tons, by breweries to 49,415 tons, and by factories producing aerated waters, cordials, etc. to 56,226 tons.

Sugar by-products

Industrial chemicals, together with large quantities of molasses, are produced as by-products in sugar mills. Further, during the period 1939 to 1960 building boards were made from the residue of crushed fibre after removal of the sugar content from sugar cane. These boards possessed high insulating and sound absorbing properties which made them particularly suitable for use in walls and ceilings. Early in the period referred to the boards were manufactured almost entirely from crushed fibre residue, the remaining component being non-millable pine, but gradually the pine content was increased until by 1960 fibre residue was no longer being used. The main purpose for which crushed cane fibre residue is now used is furnace fuel in sugar mills.

Sugar prices and returns

The prices of sugar in Australia from 1960 to 1964 (as determined under the Sugar Agreement in Australia—see page 914) and details of net returns for raw sugar from 1960-61 to 1964-65, are shown in the following tables.

SUGAR: PRICES IN AUSTRALIA, 1960 TO 1964

Year	Raw sugar, 94 net titre			Refined sugar		
	Average return per ton received by millers and growers for—			Date of determination	Wholesale price to retailer per ton	Retail price, capital cities per lb.
	Home con- sumption	Exports(a)	Whole crop (a)			
	\$	\$	\$		\$	\$
1960 . . .	125.05	79.95	98.21	14.5.56 to 15.5.60	164.10	0.08
1961 . . .	124.95	75.50	96.43	16.5.60	180.52	0.09
1962 . . .	125.10	82.18	95.98			
1963 . . .	122.00	131.22	127.97			
1964 . . .	120.75	83.89	95.78			

(a) Includes 'excess' sugar.

RAW SUGAR(a): NET RETURNS, AUSTRALIA, 1960-61 TO 1964-65
(Source: The Queensland Sugar Board)

Year	Proportion exported	Net value of exports per ton	Average price per ton for whole crop	Estimated value of crop
	per cent	\$	\$	\$'000
1960-61	59.53	79.95	98.21	135,738
1961-62	57.66	75.50	96.43	133,306
1962-63	67.85	82.18	95.98	177,496
1963-64	64.70	131.22	127.97	220,520
1964-65	67.76	83.89	95.78	186,728

(a) 94 net titre.

The estimated value of the raw sugar produced has been based upon details taken from the audited accounts of the Queensland Sugar Board. The values stated comprise the gross receipts from sales in Australia and overseas, less refining costs, freight, administrative charges, etc., and export charges, but including concessions to the fruit industry and other rebates which in 1964-65 amounted to \$2,652,000. The value thus obtained represents the net market value of all raw sugar sold, which, less the rebates, is divided between the growers and millers in the approximate proportions of 70 per cent and 30 per cent respectively.

Exports of sugar

Particulars of the exports of Australian-produced cane sugar (raw and refined) for each year from 1960-61 to 1964-65 are as follows.

RAW AND REFINED SUGAR: EXPORTS, AUSTRALIA, 1960-61 TO 1964-65

—	1960-61	1961-62	1962-63	1963-64	1964-65
Quantity tons	796,499	843,537	1,145,966	1,116,190	1,269,163
Value \$A'000 f.o.b.	70,144	67,790	91,042	156,512	112,685

Tobacco

This summer-growing annual requires a temperate to tropical climate, adequate soil moisture and a frost-free period of approximately five months. These requirements necessarily restrict its growth to particular areas. These include the Mareeba area (northern Queensland), the neighbourhood of Texas (Queensland and New South Wales border) and near Myrtleford (Victoria). The best quality Australian tobaccos are grown in Queensland. In Australia flue-curing is the main method of drying used.

Marketing

Between 9 May 1941 and 24 September 1948 all leaf was under the direct control of the Australian Tobacco Board, and prices were paid on leaf appraisal. Subsequently the Board was disbanded, and sales have been by open auction through the Tobacco Leaf Marketing Board (Queensland and northern New South Wales) and the Victorian Tobacco Growers Association Ltd. (southern New South Wales and Victoria). In 1964 the Victorian Tobacco Leaf Marketing Board was set up to market the portion of the crop that was formerly sold by the Victorian Tobacco Growers Association Ltd., and in 1965 a Board was established in New South Wales. However, the actual physical handling of New South Wales leaf at auction will continue to be carried out by the Queensland and Victorian authorities.

A stabilization plan for the tobacco growing industry has been agreed between Commonwealth and State Governments. The plan, which will operate initially for four years, commenced with the 1965 selling season. It provides broadly for the establishment of an annual marketing quota of 26 million pounds (green weight) of leaf to be sold under an agreed grade and price schedule providing for an average minimum price, based on a normal crop fall-out, of 104 cents a pound. The overall marketing quota is divided among tobacco producing States, and the State quotas are in turn divided among individual growers.

The plan is administered by the Australian Tobacco Board, constituted under the *Tobacco Marketing Act* 1965 and representative of the Commonwealth, tobacco producing States, growers, and manufacturers.

Central Tobacco Advisory Committee

The Australian Agricultural Council formed the Standing Advisory Committee on Tobacco during 1950. This Committee consisted of representatives of tobacco growers, tobacco manufacturers and the Commonwealth and State Governments. Its main functions were to review the industry and make recommendations on its problems. The Committee was reconstituted by the Agricultural Council during 1952-53. The terms of reference of this committee are given in Year Book No. 47, page 935.

In 1955 the Committee formulated a programme for increased research and advisory activities. The capital costs of establishing this programme were estimated at £168,000 (\$336,000), of which the Commonwealth Government and tobacco manufacturers each agreed to contribute half. Annual contributions are made to a fund by the Commonwealth and State Governments and tobacco growers and manufacturers. A Tobacco Industry Trust Account was established under the *Tobacco Industry Act* 1955 to receive these contributions. The contributions from growers and manufacturers are obtained under the Tobacco Charges Assessment Act and the Tobacco Charges Acts, whose purpose is to provide funds to be used in research and otherwise with a view to fostering and expanding the Australian tobacco industry. This programme commenced in 1956, and since then £1,448,286 (\$2,896,572) has been paid to State and Commonwealth departments for expenditure on tobacco research and extension. The allocation for 1964-65 was £288,738 (\$577,476). As from 1 July 1964 the annual Commonwealth contribution has been increased to one half of approved expenditure from the Tobacco Industry Trust Account; it now incorporates the Tobacco Extension Grant of \$48,000 per annum. In 1961 a Research Sub-Committee was established to review annually scientific programmes and finance in relation to the Tobacco Industry Trust Account and make recommendations to the Central Tobacco Advisory Committee.

Other assistance and research

Details of the recommendations by the Tobacco Inquiry Committee and grants periodically approved by the Commonwealth Government up to 30 June 1953 are given in Year Book No. 40, pages 895-6, and in previous issues.

The Commonwealth Scientific and Industrial Research Organization and the State Departments of Agriculture in the tobacco growing States are carrying out investigations into a wide range of problems involving fundamental research, plant breeding, variety trials, irrigation, disease and pest control, fertilizers, crop rotation, and cultural practices.

Tobacco factories

Manufacturers of Australian cigarettes and tobacco are granted a lower rate of duty on imported tobacco leaf, provided it is blended with a prescribed minimum percentage of Australian leaf. These percentages were increased from 3 per cent for cigarettes and 5 per cent for tobacco in November 1946 to 43 per cent and 40 per cent respectively from 1 July 1962. The percentage applicable to both cigarettes and tobacco from 1 July 1963 was 40 per cent and from 1 July 1964, 41.5 per cent. The rate was increased quarterly from 1 April 1965 to 1 January 1966, from which date onwards it has been set at 50 per cent for both cigarettes and tobacco.

In 1964-65 the quantity of cured leaf used in tobacco factories in Australia amounted to 52 million lb., of which 22 million lb. was of local origin. The balance was imported, chiefly from the United States of America and Rhodesia.

Tobacco area and production

The area of tobacco in 1964-65 was 10.5 per cent below the record area established in 1962-63. Production at 25,839,000 lb. was 24.8 per cent below the record established in 1963-64.

In the following table particulars of the area and production of tobacco are given by States for each of the seasons 1960-61 to 1964-65, together with averages for the three-year periods ended 1938-39, 1948-49 and 1958-59.

TOBACCO: AREA AND PRODUCTION, STATES AND N.T., 1936-37 TO 1964-65

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
AREA (ACRES)								
Average for three years ended—								
1938-39 . . .	697	4,262	3,842	77	1,055	134	..	10,067
1948-49 . . .	415	1,046	1,948	..	609	..	..	4,018
1958-59 . . .	1,257	3,478	7,479	..	1,295	..	..	13,509
Year—								
1960-61 . . .	3,408	9,932	14,395	..	1,478	..	..	29,213
1961-62 . . .	3,078	9,286	14,069	..	194	..	..	26,627
1962-63 . . .	3,163	9,844	16,346	..	28	..	..	29,381
1963-64 . . .	2,927	10,519	15,579	..	..	..	..	29,025
1964-65 . . .	2,546	9,720	14,042	..	..	..	..	26,308

PRODUCTION OF DRIED LEAF ('000 lb.)

Average for three years ended—								
1938-39 . . .	471	1,603	2,173	17	741	104	..	5,109
1948-49 . . .	380	670	1,725	..	523	..	..	3,298
1958-59 . . .	1,066	3,770	5,563	..	1,016	..	..	11,415
Year—								
1960-61 . . .	3,538	9,728	15,308	..	1,288	..	..	29,862
1961-62 . . .	3,116	6,515	12,751	..	196	..	..	22,578
1962-63 . . .	2,885	9,447	14,787	..	29	..	..	27,148
1963-64 . . .	2,652	14,459	17,231	..	..	..	..	34,342
1964-65 . . .	2,356	12,080	10,675	..	..	..	..	25,111

Imports and exports of tobacco

Imports of tobacco and tobacco manufactures into Australia during 1964-65 were valued at \$24.9 million. This included 28.3 million lb. of unmanufactured tobacco valued at \$18.6 million. Exports of tobacco and tobacco manufactures during 1964-65 were valued at \$1,924,616, including Australian produce, \$1,624,294.

Cotton

This annual shrub requires a hot climate and inter-row weed control. Lint (long fibres) is extracted from the seed cotton in the ginneries and is used for yarn. The residue, consisting of linters (short fibres), kernels and hulls (outer seed coat), is treated in oil mills. From linters and kernels are produced such items as short-fibred cotton, cotton seed oil for human consumption and industrial purposes, and meal cakes for stock feed. The hulls may be used as fuel.

The production of cotton in Australia was formerly restricted mainly to the coastal river valleys of Queensland. In recent years, however, the Namoi River area of New South Wales has emerged as the predominant growing area, while smaller quantities are grown in the Murrumbidgee Irrigation Area. The Ord River district in Western Australia is also becoming an increasingly important cotton producer. The extension of areas of cotton under irrigation in these regions has resulted in greatly increased yields.

Cotton bounty

For particulars of the *Cotton Bounty Act* 1951 and amendments of 1952, 1955 and 1957, see page 1044 of Year Book No. 49. Under the *Raw Cotton Bounty Act* 1963 the Commonwealth pays a bounty on raw cotton produced and sold for use in Australia at the rate of 13.4375 cents per lb. for Middling 1" White, with premiums and discounts on grades and staples above and below, up to a maximum of \$4 million in any one year. The bounty is for a period of five years from 1 January 1964.

Cotton area and production

The area under cultivation and the production in Australia for the years 1960-61 to 1964-65 are shown on page 921.

COTTON: AREA AND PRODUCTION, AUSTRALIA(a), 1960-61 TO 1964-65

Year	Area sown	Production of cotton(b)			Average yield per acre sown	
		Unginned		Ginned	Unginned	Ginned
		Quantity	Gross value			
	acres	'000 lb.	\$'000	'000 lb.	lb.	lb.
1960-61 . . .	37,048	15,544	1,834	5,540	420	150
1961-62 . . .	28,844	10,948	1,294	3,830	380	133
1962-63 . . .	37,689	15,762	1,876	5,403	418	143
1963-64 . . .	40,938	18,223	2,212	6,570	445	160
1964-65 . . .	37,922	63,009	7,685	17,286	1,662	455

(a) Incomplete; excludes small quantities produced in Victoria, for which particulars are not available for publication. (b) Harvested from crop sown in the previous year.

Consumption of raw cotton

The following table shows details of the availability and actual consumption of raw cotton in Australian factories during each of the five years ended 1964-65. Additional information about the cotton spinning and weaving industries is to be found in the chapter Manufacturing Industry.

RAW COTTON: PRODUCTION, IMPORTS AND CONSUMPTION
AUSTRALIA, 1960-61 TO 1964-65
('000 lb.)

Year	Production	Imports	Total	Consumption of raw cotton
1960-61 .	5,540	41,842	47,382	43,359
1961-62 .	3,830	37,735	41,565	46,517
1962-63 .	5,403	42,543	47,946	51,870
1963-64 .	6,570	56,663	63,233	62,588
1964-65 .	17,286	55,474	72,760	73,404

Peanuts

Peanuts, or groundnuts, are a sub-tropical legume (and hence summer growers), the pods of which mature beneath the surface of the soil. They thus require well drained, light textured soils. At harvest the plant is pulled, wind-rowed, field-cured for two to four weeks, and then threshed to recover the pods. The main products of the industry are nuts, peanut oil, oil cake, and synthetic protein fibre.

The production of peanuts in Australia is confined mainly to Queensland, although small quantities are grown in New South Wales, the Northern Territory and, in some years, Western Australia. Details of the area and production of peanuts are given in the table on page 922 for the years 1960-61 to 1964-65.

PEANUTS: AREA AND PRODUCTION, STATES AND N.T., 1960-61 TO 1964-65

Year	Area (acres)				Production (cwt.)			
	N.S.W.	Qld	N.T.	Aust.(a)	N.S.W.	Qld	N.T.	Aust.(a)
1960-61 . . .	788	41,659	335	42,782	9,578	446,215	1,215	457,008
1961-62 . . .	573	33,131	307	34,011	6,003	292,267	1,343	299,613
1962-63 . . .	395	35,552	(b)	c 35,947	4,258	315,144	(b)	c 319,402
1963-64 . . .	478	44,482	(b)	c 44,960	4,744	455,982	(b)	c 460,726
1964-65 . . .	400	45,554	(b)	c 45,954	4,746	202,369	(b)	c 207,115

(a) Excludes Western Australia, for which details are not available for publication. (b) Not available for publication. (c) Incomplete; excludes Northern Territory.

The gross value of the 1964-65 crop was \$2,204,000 which was approximately \$2,314,000 less than in 1963-64. All production is consumed in Australia. In recent years considerable quantities of peanut kernels have been imported. Total supplies available for consumption in Australia in 1964-65 were 21,400 tons (in shell equivalent), after allowing for a decrease of 800 tons in stock held by the Peanut Marketing Board and exports of 100 tons of peanut products. Supplies were made up of 18,400 tons from Australian production received into store by the Board and 2,300 tons imported.

Flax

Flax for fibre

This crop has a winter-growing season in Australia. The whole plant, after harvesting, is retted and scutched at local mills to recover the linen fibre and tow. The seeds may be sold to oil mills and the refuse used for stock feed.

FLAX FOR FIBRE: AREA AND PRODUCTION
STATES, 1960-61 TO 1964-65

Year	Victoria	W.A.	Australia
Area (acres)—			
1960-61 . . .	430	736	1,166
1961-62 . . .	323	91	414
1962-63 . . .	419	871	1,290
1963-64 . . .	..	171	171
1964-65 . . .	..	729	729
Production (tons of fibre)—			
1960-61 . . .	592	1,176	1,768
1961-62 . . .	514	183	697
1962-63 . . .	648	2,152	2,800
1963-64 . . .	..	318	318
1964-65 . . .	..	1,388	1,388

Flax for linseed

Fibre varieties are uneconomic for seed production, and prior to 1948-49 the growing of flax for linseed oil had not been developed extensively in Australia. Since then, however, action has been taken to develop this industry, the ultimate objective being the production of sufficient linseed to meet Australia's total oil requirements. The main producing areas are the Darling Downs in Queensland, the wheat belt of New South Wales and the western and north-eastern districts of Victoria.

The question of assistance to the industry was investigated by the Commonwealth Tariff Board in 1953, and its conclusions are contained in its Report on *Linseed and Linseed Products* dated 23 October 1953.

FLAX FOR LINSEED: AREA AND PRODUCTION, STATES, 1960-61 TO 1964-65

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Aust.
Area (acres)—						
1960-61	11,823	6,179	75,088	2,115	483	95,688
1961-62	7,266	17,711	34,390	1,513	1,253	62,133
1962-63	11,493	25,232	58,493	1,220	626	97,064
1963-64	15,335	16,240	83,336	1,002	1,588	117,501
1964-65	23,769	9,953	97,092	898	2,135	133,847
Production (tons of linseed)—						
1960-61	1,870	1,013	10,394	218	70	13,565
1961-62	856	6,093	5,187	275	178	12,589
1962-63	2,634	8,180	14,477	290	136	25,717
1963-64	3,722	4,758	20,342	283	411	29,516
1964-65	8,761	2,671	34,175	426	567	46,600

Hops

Hops are grown from perennial rootstocks over deep, well-drained soils in localities sheltered from the wind. The hop-bearing vine shoots are carried upon wire and coir trellises, from which they are later harvested, principally by hand. The green hops are kiln-dried and bleached with sulphur dioxide fumes, following which the cured hops are pressed into bales.

Hop growing in Australia is confined to the Derwent, Huon and Channel areas of Tasmania and the Ovens and King Valleys in Victoria. A small area is also under hops in Western Australia, near Manjimup, but the details are not available for publication.

Production and imports of hops

The production of hops in Australia is insufficient to meet local requirements, and additional supplies are imported to meet the needs of the brewing industry. In the following table details of the production and imports of hops and the quantity of hops used in breweries are shown for each of the years 1960-61 to 1964-65. Exports of hops are negligible and are not recorded separately.

HOPS: PRODUCTION AND DISPOSAL, AUSTRALIA
1960-61 TO 1964-65

Year	Production(a)		Imports	Net available supplies (b)	Quantity used in breweries
	Quantity	Gross value			
	cwt.	\$'000	cwt.	cwt.	cwt.
1960-61	33,099	2,358	991	34,090	40,015
1961-62	32,936	2,484	5,569	38,505	39,064
1962-63	33,629	2,570	1,337	34,966	38,202
1963-64	19,858	1,534	536	20,394	37,033
1964-65	27,893	2,372	9,521	37,414	39,517

(a) Excludes production in Western Australia, for which details are not available for publication. (b) Disregards movements in stocks.

Vegetables for human consumption**Area, production and trade**

Vegetables were initially grown on a large scale near the main cities, where there was ready access to reliable water supplies and to markets. Later, the expansion of irrigation areas and improvement in transport services resulted in their production being extended into many other areas. At present, because of the wide diversity of climatic conditions across Australia, supplies for main city markets are drawn from widely different areas, depending upon the times of maturity of the various crops. Apart from potatoes and onions, which are sold in some States through marketing boards, the bulk of vegetable trading takes place at the metropolitan markets of the cities concerned.

Details of the areas planted and production of individual kinds of vegetables are shown hereunder for the seasons 1962-63 to 1964-65. Certain particulars shown are incomplete in that details for specific vegetables in some States are either not available or are not available for publication. For further information see the bulletin *Rural Industries*. Details of the estimated consumption of vegetables for a series of years ending 1964-65 are given in the chapter Miscellaneous.

FRESH VEGETABLES FOR HUMAN CONSUMPTION: AUSTRALIA 1962-63 TO 1964-65

Vegetable	1962-63		1963-64		1964-65	
	Area sown	Production	Area sown	Production	Area sown	Production
	acres	tons	acres	tons	acres	tons
Asparagus	3,523	5,503	3,994	6,197	4,067	5,390
Beans, French and runner . .	18,429	32,373	17,969	33,065	16,707	30,371
Beans, navy	2,488	876	5,423	1,026	3,430	710
Beetroot	1,992	15,882	1,859	14,432	1,893	16,519
Cabbages and brussel sprouts	5,867	62,748	6,190	66,147	5,959	65,914
Carrots	5,204	55,380	5,446	58,478	5,591	62,629
Cauliflowers	6,659	76,811	6,631	72,677	6,941	74,262
Celery	735	10,849	740	12,288	756	13,025
Cucumbers	1,725	7,428	1,679	7,790	1,588	8,115
Lettuces	4,799	21,390	4,823	21,991	4,710	22,386
Onions	10,765	68,219	9,222	59,278	9,707	69,701
Parsnips	1,354	12,682	1,316	12,698	1,314	13,311
Peas, blue	5,710	3,407	5,165	2,656	3,973	2,718
Peas, green	52,926	79,046	50,971	74,229	57,948	100,603
Potatoes	113,742	666,596	101,987	562,032	87,919	508,019
Tomatoes	16,506	129,044	16,356	135,815	16,315	147,194
Turnips, swede and white . .	1,268	9,116	1,418	9,380	1,255	8,179
All other	34,804	..	35,651	..	35,505	..
Total	288,496	..	276,840	..	265,578	..

Processed vegetables

Total production of canned vegetables in 1964-65 amounted to 152,115,000 lb., the principal types produced being green peas (including mint-pro peas), 39,179,000 lb.; green beans, 5,482,000 lb.; baked beans (including pork and beans), 37,123,000 lb.; asparagus, 9,126,000 lb.; beetroot, 24,313,000 lb.; and mushrooms, 6,996,000 lb.

The production of dehydrated vegetables, including split peas, during 1964-65 amounted to 15,091,000 lb., while the production of potato crisps, chips and flakes was 14,818,000 lb.

There has been rapid development in the quick-frozen vegetable industry. Data were collected for the first time in 1957-58, when 13,846,000 lb. of frozen vegetables were produced, made up principally of 10,131,000 lb. of peas and 2,540,000 lb. of beans. In 1964-65 production had risen to 67,254,000 lb., of which 57,040,000 lb. were peas and 9,638,000 lb. were beans.

Exports and imports of vegetables

The quantity and value of overseas exports of pulse and fresh vegetables during 1964-65 were respectively: pulse, 7,310 tons, \$728,034; fresh onions, 2,247 tons, \$177,270; potatoes, 4,715 tons, \$426,924; other vegetables, 5,604 tons, \$842,520. Imports of pulse amounted to 6,197 tons, valued at \$1,035,894, while imports of fresh vegetables in total were 9,959 tons, valued at \$1,946,716.

In 1964-65 exports of vegetables preserved in liquid consisted of: asparagus, 1,007,196 lb., \$261,666; beans (including baked), 390,301 lb., \$58,450; peas, 412,369 lb., \$57,004; tomatoes, 327,873 lb., \$49,854; other vegetables, 512,133 lb., \$101,302.

Potatoes

This crop requires deep friable soils, which in Australia are usually basaltic, alluvial or swampy in origin. Fertilizer requirements, which are generally high, vary with the type of soil. Potatoes are killed by heavy frost, but require only moderate temperatures for growth. Mechanical

planters and diggers are used to a variable extent depending upon a variety of factors including terrain, state of the soil and scale of operations. Seed certification schemes, which operate in all States except Queensland, provide a supply of seed which is free from viral, fungal and bacterial diseases. In Australia potatoes are used almost entirely for human consumption and not for the production of starch or alcohol. They are rarely used as stock feed.

Potatoes

Area, production, and yield per acre. Victoria possesses particular advantages for the growing of potatoes, as the rainfall is generally satisfactory and the climate is unfavourable to the spread of Irish blight; consequently, the crop is widely grown. The principal areas of that State are the central highlands and the south-western and Gippsland districts. Until 1958-59 Tasmania (where production is mainly in the north-west) came next in order of acreage sown, although production exceeded that of Victoria in some of the war years. Since then, however, acreage in New South Wales and Queensland has increased considerably, and there is now a greater area of potatoes in both of these States than in Tasmania. In New South Wales production is chiefly in the tablelands districts.

The area sown, production and yield per acre of potatoes in each State during the years 1960-61 to 1964-65 and the averages for the three-year periods ended 1938-39, 1948-49 and 1958-59 are shown hereunder. A graph showing production since 1935-36 appears on page 996 of Year Book No. 49.

POTATOES: AREA, PRODUCTION AND YIELD PER ACRE, STATES AND TERRITORIES, 1936-37 TO 1964-65

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
AREA (ACRES)									
Average for three years ended—									
1938-39 . . .	21,049	40,376	11,551	4,445	4,627	32,044	..	59	114,151
1948-49 . . .	20,440	53,862	10,795	6,084	6,753	38,643	..	103	136,680
1958-59 . . .	16,589	45,225	12,980	6,035	7,977	19,002	4	94	107,906
Year—									
1960-61 . . .	18,365	38,672	11,992	5,209	6,656	10,875	(a)	36	b 91,805
1961-62 . . .	20,209	36,469	14,466	5,316	6,824	11,129	(a)	30	b 94,443
1962-63 . . .	27,420	43,024	16,994	5,918	6,499	13,839	6	42	113,742
1963-64 . . .	24,352	39,626	15,886	5,459	5,835	10,806	(a)	23	b 101,987
1964-65 . . .	20,530	32,931	14,005	5,247	5,797	9,393	(a)	16	b 87,919
PRODUCTION (TONS)									
Average for three years ended—									
1938-39 . . .	52,158	137,583	17,191	20,342	23,678	109,285	..	143	360,380
1948-49 . . .	62,701	191,590	26,470	32,149	38,722	148,389	..	598	500,619
1958-59 . . .	68,533	245,937	50,989	48,072	50,024	92,367	5	391	556,318
Year—									
1960-61 . . .	85,182	180,819	59,311	40,797	45,500	39,050	(a)	134	b 450,793
1961-62 . . .	83,301	196,032	70,675	48,479	55,700	71,560	(a)	234	b 525,981
1962-63 . . .	132,969	254,473	86,239	53,253	56,900	82,545	5	212	666,596
1963-64 . . .	98,308	200,384	90,201	51,195	55,402	66,420	(a)	122	b 562,032
1964-65 . . .	75,659	183,665	82,389	48,400	60,739	57,062	(a)	105	b 508,019
YIELD PER ACRE (TONS)									
Average for three years ended—									
1938-39 . . .	2.48	3.41	1.49	4.58	5.12	3.41	..	2.42	3.16
1948-49 . . .	3.07	3.56	2.45	5.28	5.73	3.84	..	5.81	3.66
1958-59 . . .	4.13	5.44	3.93	7.97	6.27	4.86	1.25	4.16	5.16
Year—									
1960-61 . . .	4.64	4.68	4.95	7.83	6.84	3.59	(a)	3.72	(b) 4.91
1961-62 . . .	4.12	5.38	4.89	9.12	8.16	6.43	(a)	7.80	(b) 5.57
1962-63 . . .	4.85	5.91	5.07	9.00	8.76	5.96	0.83	5.05	5.86
1963-64 . . .	4.04	5.06	5.68	9.38	9.49	6.15	(a)	5.30	(b) 5.51
1964-65 . . .	3.69	5.58	5.88	9.22	10.48	6.07	(a)	6.28	(b) 5.78

(a) Not available for publication.

(b) Incomplete; excludes Northern Territory.

Potato marketing boards were established in all States except Tasmania under separate State legislation after Commonwealth control of potato marketing under war-time legislation ceased at the end of 1948. The life of the Queensland Board was not extended when its term ended in 1954. The New South Wales Board was voted out by growers in 1956, and the Victorian Board also ceased functioning in that year. The boards in South Australia and Western Australia are the only statutory boards still in operation.

Value of potato crop. The estimated gross value of the potato crop of each State for the 1964-65 season and the value per acre are shown in the following table.

POTATOES: VALUE OF CROP, STATES AND A.C.T., 1964-65

		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	A.C.T.	Aust.
Aggregate value	\$'000	9,578	24,820	8,153	6,048	5,372	6,732	10	60,713
Value per acre	\$	467	754	582	1,153	927	717	625	691

Consumption and exports of potatoes. The annual consumption of potatoes in Australia during each of the three years 1962-63 to 1964-65 amounted to 594,300 tons, 507,700 tons and 469,000 tons respectively or 123.1 lb., 103.1 lb. and 93.4 lb. respectively per head of population. These figures exclude the quantities used for seed, which averaged about 46,000 tons annually over this period. Details showing exports for the years 1960-61 to 1964-65 are given in the following table.

POTATOES: EXPORTS, AUSTRALIA, 1960-61 TO 1964-65

		1960-61	1961-62	1962-63	1963-64	1964-65
Quantity	tons	5,219	4,121	15,819	12,722	4,715
Value	\$A'000 f.o.b.	390	320	850	643	427

The increased exports in 1962-63 and 1963-64 were due principally to increased shipments to Singapore, Ceylon, French Possessions, Pacific Islands, and Hong Kong. Imports of potatoes into Australia are usually negligible, but in 1964-65 they amounted to 5,404 tons valued at \$343,066.

Onions

Area, production and yield per acre. Until recently Australia's onion supply came chiefly from Victoria. However, during the last five years Victorian production has not been as great as formerly, and in 1960-61, and again in 1963-64, it was exceeded by Queensland. The Victorian crop consists almost entirely of brown onions, and the bulk of the crop is grown in a small section of the Western Division of the State, where the volcanic ash soils have been found to be particularly suitable for onion growing on a commercial scale. Most of Queensland's onion production is grown in the Lockyer Valley and also consists mainly of brown varieties. Details of the area, production and yield per acre are given in the following table for the years 1960-61 to 1964-65 together with averages for the three-year periods ended 1938-39, 1948-49 and 1958-59. A graph showing production since 1935-36 appears on page 996 of Year Book No. 49.

ONIONS: AREA, PRODUCTION AND YIELD PER ACRE, STATES AND A.C.T., 1936-37 TO 1964-65

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	A.C.T.	Aust.
AREA (ACRES)								
Average for three years ended—								
1938-39	126	5,634	1,187	521	122	8	6	7,604
1948-49	433	6,245	2,234	534	468	26	4	9,944
1958-59	491	4,614	3,655	635	413	29	9	9,846
Year—								
1960-61	624	3,532	3,763	657	465	59	10	9,110
1961-62	490	4,456	3,173	753	479	60	(a)	(b) 9,412
1962-63	800	4,634	3,796	944	509	79	(a)	(b) 10,765
1963-64	682	3,756	3,317	930	446	91	(a)	(b) 9,222
1964-65	803	3,825	3,422	1,146	428	83	(a)	(b) 9,707

(a) Not available for publication.

(b) Includes a small area in Northern Territory but excludes Australian Capital Territory.

**ONIONS: AREA, PRODUCTION AND YIELD PER ACRE, STATES
AND A.C.T., 1936-37 TO 1964-65—continued**

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	A.C.T.	Aust.
PRODUCTION (TONS)								
Average for three years ended—								
1938-39 . . .	324	34,039	3,040	3,904	915	42	21	42,285
1948-49 . . .	1,703	41,156	10,489	5,032	3,831	153	24	62,388
1958-59 . . .	2,496	31,982	15,505	5,625	4,599	132	71	60,410
Year—								
1960-61 . . .	3,935	16,286	21,156	5,947	5,826	285	80	53,515
1961-62 . . .	3,082	23,784	17,921	6,915	6,290	327	(a)	(b)58,323
1962-63 . . .	5,185	26,175	21,184	8,531	6,622	515	(a)	(b)68,219
1963-64 . . .	4,998	17,946	20,412	8,736	6,814	372	(a)	(b)59,278
1964-65 . . .	6,378	22,963	22,853	11,061	5,981	465	(a)	(b)69,701

YIELD PER ACRE (TONS)

Average for three years ended—								
1938-39 . . .	2.57	6.04	2.56	7.49	7.50	5.25	3.50	5.56
1948-49 . . .	3.93	6.59	4.70	9.42	8.19	5.88	6.00	6.27
1958-59 . . .	5.08	6.93	4.24	8.86	11.14	4.55	7.89	6.14
Year—								
1960-61 . . .	6.31	4.61	5.62	9.05	12.52	4.83	8.00	5.87
1961-62 . . .	6.29	5.34	5.65	9.18	13.13	5.45	(a)	(b) 6.20
1962-63 . . .	6.48	5.65	5.58	9.04	13.01	6.52	(a)	(b) 6.34
1963-64 . . .	7.33	4.78	6.15	9.39	15.28	4.09	(a)	(b) 6.43
1964-65 . . .	7.94	6.00	6.68	9.65	13.97	5.60	(a)	(b) 7.18

(a) Not available for publication. (b) Includes a small production in Northern Territory but excludes Australian Capital Territory.

Value of onion crop. The estimated gross value of the onion crop and the value per acre are shown in the following table for the 1964-65 season.

ONIONS: VALUE OF CROP, STATES AND TERRITORIES, 1964-65

—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Aggregate value \$'000	568	1,440	2,014	917	376	25	(a)	(a)	(b)5,340
Value per acre \$	707	376	589	800	879	301	(a)	(a)	(b) 550

(a) Not available for publication. (b) Incomplete; excludes Northern Territory and Australian Capital Territory.

Consumption and exports of onions. The consumption of onions in Australia during 1964-65 was 68,700 tons or 13.7 lb. per head of population. Onions are the only root crop, other than potatoes, in which any considerable overseas trade is carried on by Australia. In 1964-65 exports amounted to 2,247 tons, valued at \$177,270, and were shipped mainly to Malaysia, Papua and New Guinea, and New Caledonia. The quantity of exports in 1963-64 was 3,547 tons, valued at \$250,026. Imports of onions amounted to 815 tons, valued at \$74,112 in 1964-65, and 3,035 tons, valued at \$244,020 in 1963-64. The principal country from which onions were imported was New Zealand.

Fruit

The varieties of fruit grown differ in various parts of the States, ranging from pineapples, papaws and mangoes in the tropics to strawberries, raspberries and currants in the colder parts of the temperate zone. In New South Wales citrus fruit (oranges, lemons, etc.) and bananas are the principal crops, although apples, peaches, plums, pears, and cherries are grown extensively. The principal varieties grown in Victoria are apples, pears, peaches, oranges, and apricots. In Queensland apples, pineapples, bananas, oranges, mandarins, peaches, and plums are the varieties

most largely cultivated. In South Australia, in addition to oranges, apples, peaches, apricots, and pears, almonds and olives are grown extensively. In Western Australia apples, oranges plums, and pears are the chief varieties. In Tasmania apples occupy over three-quarters of the fruit-growing area, but small fruit, such as currants, raspberries and gooseberries, are grown extensively, the balance of the area being mainly taken up with pears and apricots.

Oversea marketing of fruits

The *Apple and Pear Organization Act 1938-1964* provides for the establishment of an Australian Apple and Pear Board comprising representatives of growers, exporters, employees, and the Commonwealth Government. A representative in London has also been appointed by the Board. An export levy to meet the expenses of the Board is provided for in the *Apple and Pear Export Charges Act 1938-1960*. The function of the Board is the organization and control of exports of fresh apples and pears, and it has the power to regulate shipments, determine export quotas, allocate consignments from each State, and recommend the licensing of exporters. The Board contributes to apple and pear publicity activities overseas.

The *Canned Fruits Marketing Act 1963*, which was introduced in January 1964, replaced the *Canned Fruits Export Control Act 1926-1959* under which the oversea marketing of canned fruit was initially organized (see Year Book No. 49, page 1050). The Australian Canned Fruits Board, which is constituted under the Act, determines the terms and conditions for oversea sales. The Board exercises this control through a system of export licences. The Board, whose membership was increased from five to eleven members and which was granted greater powers under the 1963 Act, comprises representatives of the Commonwealth Government (one), canners of deciduous fruit (six), growers of deciduous fruit (three), and pineapple interests (one). The Board maintains a London office. The *Canned Fruits Export Charges Act 1926-1963* provides for a levy on exports to meet the Board's expenses, which include contributions to oversea publicity connected with the canned fruit industry. In 1963 an excise duty was imposed by the *Canned Fruits Excise Act 1963* on canned deciduous fruit entered for domestic consumption, and the proceeds of the duty are made available to the Board to assist in the promotion of oversea sales of canned deciduous fruit.

In 1959 the Australian Canned Fruits Sales Promotion Committee was established to promote the sale of canned deciduous fruit on the home market and overseas. The operations of the Committee are financed by a levy on fruit accepted by the canneries for the production of canned fruit. The Committee comprises representatives of growers and processors of canning fruit and a representative of the Commonwealth Government.

Area and production of fruit

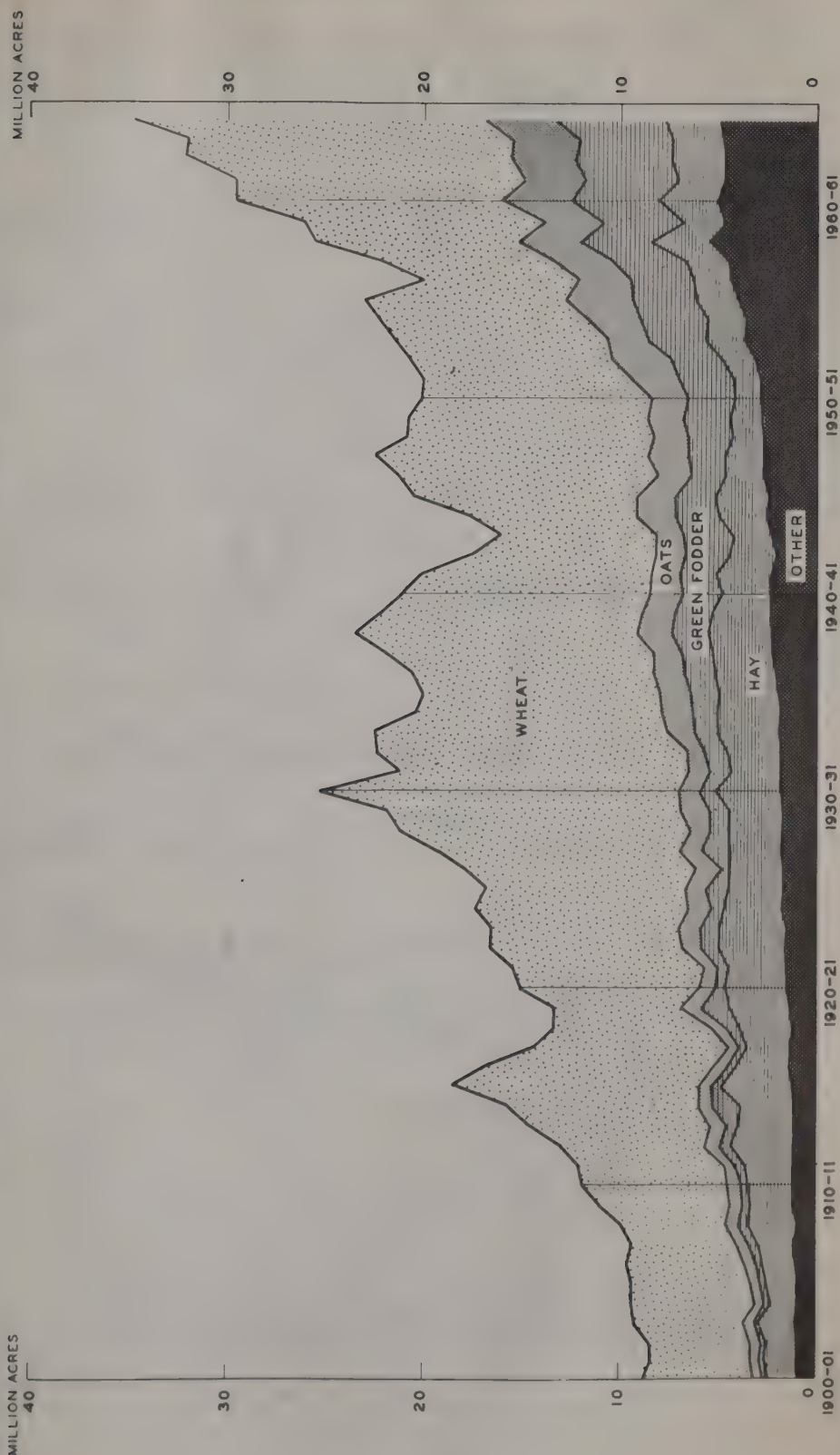
The area under fruit in Australia has been increasing steadily in recent years, and new record levels have been reached each year since 1961-62. The following tables set out the area under fruit in the several States.

FRUIT: AREA, STATES AND TERRITORIES, 1960-61 TO 1964-65

(Acres)

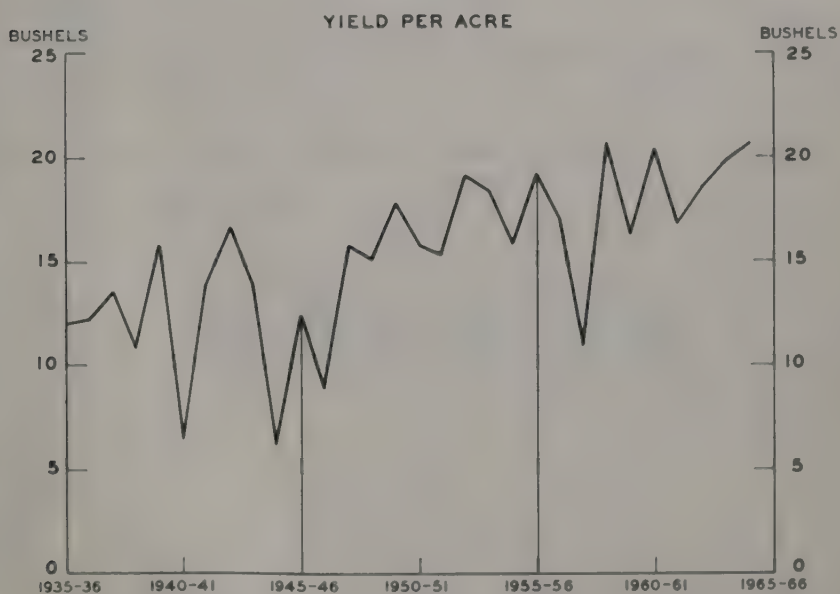
Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1960-61	92,962	71,415	41,067	37,711	23,913	22,194	120	55	289,437
1961-62	94,246	72,712	41,872	38,548	24,487	21,859	136	65	293,925
1962-63	98,032	75,855	43,242	40,444	25,204	21,943	136	55	304,911
1963-64	98,670	76,796	44,681	41,686	25,670	22,134	149	54	309,840
1964-65	97,221	75,509	45,918	43,012	26,425	22,375	130	56	310,646

AREA OF CROPS: AUSTRALIA, 1900-01 TO 1964-65



WHEAT FOR GRAIN

AUSTRALIA, 1935-36 TO 1964-65



FRUIT: AREA AND PRODUCTION, STATES AND TERRITORIES, 1964-65

Fruit	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
AREA, BEARING AND NOT BEARING (ACRES)									
Apples . . .	19,031	22,678	13,255	6,038	15,742	18,075	..	51	94,870
Apricots . . .	2,043	3,277	479	4,684	309	482	..	..	11,274
Bananas . . .	20,912	..	5,353	..	469	..	28	..	26,762
Cherries . . .	2,816	2,102	20	553	38	55	..	..	5,584
Citrus—									
Oranges . . .	28,501	6,702	3,815	16,689	4,734	..	56	..	60,497
Mandarins . . .	2,520	576	2,326	695	499	..	3	..	6,619
Lemons and limes	2,475	1,051	482	540	631	..	9	..	5,188
Other . . .	676	281	91	538	141	..	5	..	1,732
Nuts . . .	221	290	573	3,514	110	..	..	..	4,708
Peaches . . .	8,137	14,700	1,870	4,707	924	49	..	..	30,387
Pears . . .	3,025	17,214	994	2,034	1,148	1,664	..	(a)	(b) 26,079
Pineapples . . .	159	..	11,404	..	..	..	19	..	11,582
Plums . . .	1,865	1,602	1,439	384	1,039	78	..	..	6,407
Prunes . . .	3,099	267	..	728	12	2	..	..	4,108
Small fruit . . .	39	962	224	154	10	1,940	..	..	3,329
Other fruit . . .	1,702	3,807	3,593	1,754	619	30	10	5	11,520
Total . . .	97,221	75,509	45,918	43,012	26,425	22,375	130	56	310,646

PRODUCTION ('000 BUSHELS)

Apples . . .	2,988	4,394	1,324	1,625	2,355	6,207	..	4	18,897
Apricots . . .	391	293	36	1,170	24	54	..	..	1,968
Bananas . . .	4,113	..	767	..	145	..	3	..	5,028
Cherries . . .	188	118	1	42	1	4	..	..	354
Citrus—									
Oranges . . .	5,213	1,244	709	3,188	480	..	2	..	10,836
Mandarins . . .	179	47	330	62	27	..	..	..	645
Lemons and limes	453	148	112	42	98	..	1	..	845
Peaches . . .	1,307	2,363	145	1,173	87	3	..	..	5,078
Pears . . .	557	4,026	82	574	191	490	..	(c)	(b) 5,920
Pineapples . . .	35	..	4,327	..	..	..	1	..	4,363
Plums . . .	156	144	115	38	101	12	..	..	502
Prunes . . .	400	28	..	72	1	1	..	..	566

(a) Not available for publication; included with Other fruit. (b) Incomplete; excludes the Australian Capital Territory. (c) Not available for publication.

Principal fruit crops

The area and production of the principal fruit crops and the gross value of production during the seasons 1960-61 to 1964-65 are shown hereunder.

PRINCIPAL FRUIT CROPS: AREA, PRODUCTION AND GROSS VALUE OF PRODUCTION, AUSTRALIA, 1960-61 TO 1964-65

Year	Apples	Apricots	Bananas	Oranges	Peaches	Pears	Plums and prunes
1960-61 . . .	86,882	11,945	29,870	50,626	26,883	23,935	10,665
1961-62 . . .	87,571	11,461	29,180	53,623	29,627	25,338	10,839
1962-63 . . .	91,380	11,847	30,392	57,301	30,226	25,945	10,828
1963-64 . . .	92,859	11,890	29,709	59,211	30,237	25,870	10,963
1964-65 . . .	94,870	11,274	26,762	60,497	30,387	26,079	10,515

PRINCIPAL FRUIT CROPS: AREA, PRODUCTION AND GROSS VALUE OF PRODUCTION, AUSTRALIA, 1960-61 TO 1964-65—continued

Year	Apples	Apricots	Bananas	Oranges	Peaches	Pears	Plums and Prunes
PRODUCTION ('000 BUSHEL)							
1960-61 . .	15,487	1,323	4,830	6,244	2,471	5,360	930
1961-62 . .	17,127	1,869	4,876	8,168	3,962	6,567	961
1962-63 . .	18,349	1,913	4,832	9,307	4,003	5,667	1,043
1963-64 . .	19,285	1,610	5,324	8,735	4,366	6,916	1,039
1964-65 . .	18,897	1,968	5,028	10,836	5,078	5,920	1,068
GROSS VALUE OF PRODUCTION (\$'000)							
1960-61 . .	41,286	3,870	15,430	18,940	6,940	13,184	3,656
1961-62 . .	40,006	5,754	17,262	19,194	9,534	14,408	3,322
1962-63 . .	42,006	5,296	18,354	19,752	9,548	12,760	3,226
1963-64 . .	44,862	4,802	16,442	20,834	10,084	14,900	4,036
1964-65 . .	46,577	5,508	18,585	23,547	12,676	14,753	4,544

Production and consumption of jams and jellies and preserved fruit

In Australia considerable quantities of fruit are used in the production of jams and jellies and for preserving. During 1964-65 output of jams, conserves, fruit spreads, etc. amounted to 90,078,000 lb., while output of preserved fruit amounted to 511,074,000 lb. Of the latter figure, pears accounted for 119,726,000 lb., peaches 203,012,000 lb., and pineapples 54,354,000 lb.

In 1964-65, 7,190,080 cwt of fruit was used in factories classified to the sub-classes Oils, vegetable; Jam, fruit and vegetable canning; Condiments, coffee, spices; Aerated waters and cordials; and Dehydrated fruit and vegetables. Details of the estimated consumption of fruit and fruit products per head of population for a series of years ending 1964-65 are shown in the chapter Miscellaneous.

Imports and exports of fruit and fruit products

The imports of fresh fruit into Australia are negligible, while those of dried fruit consist mainly of dates. A considerable export trade in both fresh and dried fruit is carried on by Australia with overseas countries. The values of the shipments in 1964-65 amounted to \$30,542,000 and \$24,100,000 respectively. Apples constitute the bulk of the fresh fruit exported, although exports of pears and citrus fruit are considerable. Particulars of the Australian export trade in fresh and frozen fruit for each of the years 1960-61 to 1964-65 are shown in the following table.

FRESH AND FROZEN FRUIT: EXPORTS, AUSTRALIA, 1960-61 TO 1964-65

Year	Apples		Pears		Citrus		Total value(a)
	Quantity	Value	Quantity	Value	Quantity	Value	
	'000 bus.	\$A'000 f.o.b.	'000 bus.	\$A'000 f.o.b.	'000 bus.	\$A'000 f.o.b.	\$A'000 f.o.b.
1960-61 . .	5,729	14,642	1,235	4,160	419	1,328	20,738
1961-62 . .	7,083	18,792	1,639	5,150	673	2,172	26,726
1962-63 . .	7,206	23,290	1,071	3,500	862	2,566	29,968
1963-64 . .	8,212	24,036	1,666	5,294	961	2,986	33,156
1964-65 . .	7,051	20,989	1,461	5,297	1,082	3,382	30,543

(a) Includes exports of all other fresh and frozen fruit.

The quantity and value of oversea imports and exports of dried fruit, other than raisins and currants, for the years 1960-61 to 1964-65 are shown below. Normally the bulk of the imports consists of dates obtained almost entirely from Iraq and Iran. The export figures include particulars of some re-exported dried fruit.

**DRIED TREE FRUIT^(a): IMPORTS AND EXPORTS, AUSTRALIA
1960-61 TO 1964-65**

Year	Imports ^(b)		Exports	
	Quantity	Value	Quantity	Value
	'000 lb.	\$A'000 f.o.b.	'000 lb.	\$A'000 f.o.b.
1960-61	9,178	606	8,199	1,864
1961-62	8,266	628	5,961	1,565
1962-63	8,939	592	6,611	1,905
1963-64	10,262	604	8,555	2,003
1964-65	8,454	601	9,420	1,810

(a) Excludes raisins and currants dealt with separately under Vineyards (see below). (b) Dates and figs only.

Exports of jam and jellies in 1964-65 were 11,006,000 lb., valued at \$1,676,000 f.o.b., compared with 11,774,000 lb., valued at \$1,622,000 f.o.b. in 1963-64. Imports of jams and jellies in 1964-65 were 1,234,000 lb., valued at \$251,000, compared with 1,432,000 lb., valued at \$271,000 in 1963-64.

The total value of fruit preserved in tins or other airtight containers, or pulped, imported into Australia during 1964-65 was \$508,430. Large quantities of fruit preserved in tins or other airtight containers are normally exported from Australia, the quantity recorded in 1964-65 being 102,003 tons valued at \$27,583,558. Exports in 1964-65 were made up principally of peaches (41,489 tons), pears (39,517 tons), fruit salad (6,697 tons), pineapples (4,657 tons), and apricots (4,078 tons). In addition, the exports of pulped fruits during 1964-65 amounted to 1,458 tons valued at \$534,346.

Vineyards

Grapes require a warm to hot climate and a predominantly winter rainfall. Freedom from late spring frosts is essential. They are grown for wine-making, drying and, to a minor extent, for table use. In Australia wine is produced very largely from irrigated crops, as are dried fruits. Some of the better known wine producing areas are the Murray Valley (South Australia and Victoria), Barossa Valley and Southern Vales Areas (South Australia), the Murrumbidgee Irrigation Area and the Hunter Valley (New South Wales), the Mildura, Rutherglen and Stawell districts of Victoria, and the Swan Valley (Western Australia). Nearly all the dried fruit is produced along the River Murray and its tributaries, with small localized areas in the other States.

Area of vineyards

The area under vineyards in the 1964-65 season in Victoria and South Australia constituted 77 per cent of the total area of vineyards. The total area of vines in the several States during each of the years 1960-61 to 1964-65 and the averages for the three-year periods ended 1938-39, 1948-49 and 1958-59 are shown in the following table.

VINEYARDS: AREA, STATES, 1936-37 TO 1964-65
(Acres)

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Aust.(a)
Average for three years ended—						
1938-39 .	16,824	42,071	2,670	57,185	6,197	124,947
1948-49 .	16,482	44,114	3,099	58,971	9,965	132,631
1958-59 .	17,210	44,823	2,926	57,199	8,967	131,125
Year—						
1960-61 .	16,988	44,649	3,110	56,897	8,864	130,508
1961-62 .	17,607	45,105	3,203	57,836	9,017	132,768
1962-63 .	17,704	45,662	3,237	58,266	8,685	133,554
1963-64 .	18,715	46,501	3,276	58,679	8,629	135,800
1964-65—						
Drying .	8,033	39,589	..	13,411	3,345	64,378
Table .	2,965	3,160	3,012	244	1,376	10,757
Wine .	9,466	5,247	287	45,202	3,589	63,791
Total .	20,464	47,996	3,299	58,857	8,310	138,926

(a) Excludes for some years particulars for Northern Territory and Australian Capital Territory, which are not available for publication. There are no vineyards in Tasmania.

Wine industry

Australia produces wine of every type and also brandy. In recent years there has been a distinct trend toward greater consumption and production of unfortified or table wines. Until 1957-58 production of these wines (which include burgundy, claret, riesling, sauterne, and sparkling wines) was less than half that of the fortified varieties (sherries, ports, etc.). By 1964-65 production of table wines reached a volume only 24 per cent smaller than that of fortified varieties.

The *Wine Overseas Marketing Act* 1929-1963 was introduced to place the overseas marketing of wine on an orderly basis. The Australian Wine Board, consisting of representatives from wineries and distilleries, grape-growers and the Commonwealth Government, supervises the sale and distribution of Australian wine exported and recommends conditions under which export licences should be issued. The Board also engages in wine publicity and trade promotion activities both in Australia and overseas. In London the Board maintains an Australian Wine Centre, which is a medium for promoting interest in Australian wines and brandy. It is also a retail shop for the sale of these products. The *Wine Grapes Charges Act* 1929-1957 provides for the imposition of a levy on all grapes used in Australia for the manufacture of wine, brandy and spirit used for fortifying wine. The proceeds of the levy are used to meet the Board's projects in Australia and overseas and to defray the administrative expenses of the Board, which has no other source of income.

Production and consumption of wine

In 1964-65 the total production of wine (beverage and distillation) in Australia was 38.6 million gallons, while total consumption of beverage wine was 13.8 million gallons (1.22 gallons per head of population). Similar particulars for 1963-64 are 37.5 million gallons and 13.4 million gallons (1.22 gallons per head of population) respectively.

The quantities of wine and brandy produced in the several States during the 1960-61 to 1964-65 seasons, together with the averages for the three-year periods ended 1938-39, 1948-49 and 1958-59, are shown in the following table.

WINE: PRODUCTION(a), STATES, 1936-37 TO 1964-65
(^{'000} gallons)

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Aust.
Average for three years ended—						
1938-39 . . .	2,712	1,359	31	14,021	396	18,519
1948-49 . . .	4,178	3,040	31	25,906	689	33,844
1958-59 . . .	3,974	2,435	36	25,190	743	32,378
Year—						
1960-61 . . .	4,904	3,021	32	25,061	744	33,762
1961-62 . . .	6,442	3,605	36	30,831	822	41,736
1962-63 . . .	5,858	2,433	28	20,785	789	29,893
1963-64 . . .	6,030	3,705	33	27,102	666	37,536
1964-65 . . .	6,404	3,458	24	28,112	612	38,610

(a) Net factory and farm production of beverage and distillation wine excluding the liquid gallage of spirits added in wine fortifying.

BRANDY: PRODUCTION, SOUTH AUSTRALIA AND AUSTRALIA
1936-37 TO 1964-65
(Proof gallons)

Period	South Australia	Australia(a)
Average for three years ended—		
1938-39 . . .	446,251	505,474
1948-49 . . .	648,641	714,688
1958-59 . . .	1,009,040	1,149,032
Year—		
1960-61 . . .	1,044,285	1,166,978
1961-62 . . .	1,042,580	1,177,943
1962-63 . . .	994,420	1,128,997
1963-64 . . .	1,052,850	1,219,968
1964-65 . . .	1,183,351	1,400,100

(a) Includes New South Wales and Victoria, for which separate details are not available for publication.

Exports and imports of wine and brandy

Exports of wine and brandy in 1964-65 totalled 2,109,139 gallons, of which the United Kingdom received 1,418,837 gallons, Canada 361,789 gallons, New Zealand 79,928 gallons, Hong Kong 26,563 gallons, and other countries 222,022 gallons. Exports of Australian-produced wine for the five years ended 1964-65 are shown in the following table.

WINE: EXPORTS, AUSTRALIA, 1960-61 TO 1964-65

Year	Quantity (gallons)			Value (\$Af.o.b.)		
	Sparkling	Other	Total	Sparkling	Other	Total
1960-61 . . .	11,441	1,884,978	1,896,419	59,572	2,546,158	2,605,730
1961-62 . . .	5,145	1,664,984	1,670,129	34,200	2,737,860	2,772,060
1962-63 . . .	17,245	1,596,887	1,614,132	92,444	2,657,052	2,749,496
1963-64 . . .	10,373	1,527,666	1,538,037	62,118	2,682,108	2,744,226
1964-65 . . .	16,035	1,977,329	1,993,364	96,056	3,427,426	3,523,482

Imports for 1964-65 amounted to 149,818 gallons valued at \$618,342, compared with 117,537 gallons valued at \$466,456 in the previous year. During 1964-65 Italy supplied 65,128 gallons valued at \$190,792, France 33,810 gallons valued at \$231,922 and the Federal Republic of Germany 13,067 gallons valued at \$73,232.

Exports of Australian-produced brandy in 1964-65 amounted to 115,775 proof gallons, valued at \$467,630. Imports of brandy, mainly from France, amounted to 84,383 proof gallons, valued at \$465,130.

Dried vine fruit industries

The dry period from November to March in the lower Murray valley makes this an ideal area for dried vine fruit. Harvesting for drying takes place at the end of summer. The sun-drying process is often accelerated by using a dip of cold potash.

The *Dried Fruits Export Control Act* 1924-1964 was passed to organize oversea marketing of Australian dried vine fruit. The Australian Dried Fruits Control Board, consisting of growers' representatives, members with commercial experience in marketing dried fruits and a Government representative, controls the sale and distribution of dried fruit exports, recommends the licensing of exporters and contributes to dried vine fruit publicity activity overseas. In conjunction with its London office, the Board has improved dried fruit marketing overseas by its system of appraisal, regulation of shipments and advertising. The *Dried Fruits Export Charges Act* 1924-1964 provides for a levy on exports of dried fruit to defray costs and expenses incurred by the Board.

For details of the bulk purchase agreements between the Governments of the United Kingdom and Australia which operated during the period 1946-53 see Year Book No. 40, page 888. From 1 December 1953 exports to the United Kingdom have been on a trader to trader basis.

In June 1963 Australian, Greek and Turkish dried vine fruit interests concluded an agreement to maintain minimum prices for sultanas on world markets. The agreement, which aims at international price stability, is periodically reviewed. A permanent committee of the contracting parties was established in London for the purpose of supervising the working of the agreement, and a sub-committee of the permanent committee was established in Hamburg in 1964.

The Dried Vine Fruits Stabilization Scheme was introduced under the *Dried Vine Fruits Stabilization Act* 1964 to stabilize seasonal returns to growers of currants, sultanas and raisins. Its main features are:

Growers are guaranteed an average return from seasonal sales of currants, sultanas and raisins equal to the average cost of production of each variety less \$10.00 per ton.

The maximum quantities for which returns are guaranteed each season are 13,500 tons of currants, 75,000 tons of sultanas and 11,000 tons of raisins.

Growers are required to contribute to separate varietal stabilization funds when the average return to the industry from seasonal sales of a variety exceeds cost of production by more than \$10.00 a ton, with a limit on such contributions of \$20.00 a ton.

When the quantity received for packing in any season does not reach 8,000 tons of currants, 50,000 tons of sultanas or 6,000 tons of raisins, growers are not required to contribute to the stabilization fund for the variety concerned.

Contributions are to be made by the Commonwealth to raise average returns to the guaranteed price when there is insufficient industry money in a stabilization fund for this purpose.

Limits are set to accumulation of money in the stabilization funds. These are \$1,000,000 in the case of both the currant and raisin stabilization funds, and \$4,000,000 in the case of the sultana stabilization fund.

Where these limits are exceeded during the operation of the scheme, the excess will be used first to reimburse the Government for any contribution it may have made to a fund; any balance will be repaid to growers on a first-in first-out basis.

The scheme is to operate for five years. At the end of the fifth year any credit balance in the stabilization funds will be used, in the first instance, to reimburse the Government for unrepaid contributions (if any). If the scheme is not renewed any remaining money will be returned to growers.

Growers' contributions for the scheme are collected under the *Dried Vine Fruits Contributory Charges Act* 1964 and the *Dried Vine Fruits Contributory Charges (Collection) Act* 1964.

Production and disposal of dried vine fruit

As the production of dried vine fruit is far in excess of Australia's requirements, considerable quantities are available for export. Total production during the 1964-65 season amounted to 107,911 tons, while exports for the year ended December 1965 were 77,828 tons, leaving an estimated 30,083 tons available for Australian consumption from that season's production. Australian consumption includes amounts delivered to biscuit manufacturers, bakeries, etc., as well as retail sales for household consumption.

The production of dried vine fruit during each of the seasons 1960-61 to 1964-65 and the averages for the three-year periods ended 1938-39, 1948-49 and 1958-59 are shown in the following table.

DRIED VINE FRUIT: PRODUCTION, STATES, 1936-37 TO 1964-65
(Tons)

Period	N.S.W.		Vic.		S.A.		W.A.		Australia	
	Raisins (a)	Currants	Raisins (a)	Currants	Raisins (a)	Currants	Raisins (a)	Currants	Raisins (a)	Currants
Average for three years ended—										
1938-39 . . .	5,464	1,163	39,810	8,953	13,215	9,009	723	2,179	59,212	21,304
1948-49 . . .	5,429	994	40,027	7,380	8,811	5,243	580	3,179	54,847	16,796
1958-59 . . .	10,300	705	53,178	4,294	11,115	4,432	118	1,746	74,711	11,177
Year—										
1960-61 . . .	10,777	981	51,002	5,583	6,751	4,543	51	1,984	68,581	13,091
1961-62 . . .	13,089	410	64,862	2,714	10,674	2,742	66	1,941	88,691	7,807
1962-63 . . .	8,560	463	44,059	2,536	11,007	2,607	51	1,225	63,677	6,831
1963-64 . . .	13,563	709	66,138	3,934	13,159	4,533	121	2,166	92,981	11,342
1964-65 . . .	12,841	632	66,153	4,477	16,325	5,044	75	2,364	95,394	12,517

(a) Includes sultanas and lexias.

The following table shows the exports of dried vine fruit during each of the years 1960-61 to 1964-65.

DRIED VINE FRUIT(a): EXPORTS, AUSTRALIA, 1960-61 TO 1964-65

Year	Raisins, sultanas and lexias		Currants		Total	
	Quantity	Value	Quantity	Value	Quantity	Value
	tons	\$A'000 f.o.b.	tons	\$A'000 f.o.b.	tons	\$A'000 f.o.b.
1960-61 . . .	48,805	14,266	7,838	2,065	56,643	16,331
1961-62 . . .	60,169	17,910	4,564	1,240	64,733	19,150
1962-63 . . .	56,696	16,058	4,208	1,141	60,904	17,199
1963-64 . . .	57,451	17,442	5,512	1,601	62,963	19,043
1964-65 . . .	63,197	20,322	6,532	1,968	69,729	22,290

(a) Excludes quantities exported as mincemeat.

The chief countries importing Australian dried vine fruit are the United Kingdom, Canada, the Federal Republic of Germany, New Zealand and Ireland. The quantities exported to these countries in 1964-65 were 27,029 tons, 17,559 tons, 9,389 tons, 6,701 tons, and 1,962 tons respectively.

Table grapes

Grapes for table use are grown in all States except Tasmania, but the area of this type was only about 8 per cent of the productive area of vines in 1964-65. The quantities of table grapes produced during the season 1964-65 in each State are shown on page 887.

PASTORAL PRODUCTION

Livestock numbers

A detailed account of the various enumerations of livestock in Australia made prior to 1860 was given on page 748 of Year Book No. 35. Since 1860 annual enumerations have been made, based, with few exceptions, on actual collections made through the agency of the State police or by post. Particulars concerning the numbers of each of the principal kinds of livestock in Australia, at decennial intervals from 1860 to 1960, and from 1961 onwards in single years, are given in the following table, and are shown continuously since 1870 on the graph on plate 54 of this Year Book.

LIVESTOCK: AUSTRALIA, 1860 TO 1965

('000)

Year	Horses	Cattle	Sheep	Pigs	Year	Horses	Cattle	Sheep	Pigs
1860 .	432	3,958	20,135	351	1940 .	1,699	13,080	119,305	1,455
1870 .	717	4,276	41,594	543	1950 .	1,057	14,640	112,891	1,123
1880 .	1,069	7,527	62,184	816	1960 .	640	16,503	155,174	1,424
1890 .	1,522	10,300	97,881	891	1961 .	598	17,332	152,679	1,615
1900 .	1,610	8,640	70,603	950	1962 .	562	18,033	157,712	1,652
1910 .	2,166	11,745	98,066	1,026	1963 .	547	18,549	158,626	1,440
1920 .	2,416	13,500	81,796	764	1964 .	536	19,055	164,981	1,468
1930 .	1,793	11,721	110,568	1,072	1965 .	520	18,816	170,622	1,660

While livestock numbers (particularly sheep) have increased substantially since 1860, marked fluctuations have taken place during the period, mainly on account of widespread droughts which have from time to time left their impressions on the pastoral history of Australia. These occurred in 1868, 1877, 1883-84, 1892, 1893, 1895, 1901-02, 1912, 1914, 1918, 1919, 1922-23, 1925-26, 1927-28, 1929-30, 1940-41, 1944-45 to 1946-47, and 1964-65. The years in which the numbers of livestock attained their peaks are as follows: horses, 1919 (2,527,000); cattle, 1964 (19,055,000); sheep, 1965 (170,622,000); and pigs, 1941 (1,797,000).

The distribution throughout Australia of sheep, beef cattle, dairy cattle, and pigs at 31 March 1963 is shown in the maps on pages 1049 and 1050 and facing pages 1082 and 1083 of Year Book No. 50.

The numbers of horses, cattle, sheep, and pigs in each State and Territory are shown later in this chapter. As explained on page 940, since 1964 farmers are no longer asked to classify their herds as either 'beef cattle' or 'dairy cattle'; consequently detailed statistics of cattle from 1964 onwards are not comparable with those for earlier years.

Value of pastoral production

Values of pastoral production are shown for 1964-65 and earlier years in the following tables. Further details of the source of the information and an explanation of the terms used in this compilation will be found in the chapter Miscellaneous. Maintenance costs and depreciation have not been deducted; consequently the net values are inflated to the extent of these amounts.

GROSS, LOCAL AND NET VALUES OF PASTORAL PRODUCTION, STATES AND TERRITORIES, 1964-65

(\$'000)

State or Territory	Gross production valued at principal markets	Marketing costs	Local value of production	Value of materials used in process of production	Net value of production(a)
New South Wales	535,114	42,433	492,681	(b) 41,313	451,368
Victoria	373,501	41,017	332,484	22,816	309,668
Queensland	270,939	22,619	248,320	27,332	220,988
South Australia	135,916	8,313	127,603	17,549	110,054
Western Australia	125,837	8,960	116,877	15,808	101,069
Tasmania	33,233	2,119	31,114	10,074	21,040
Northern Territory	6,450	1,078	5,372	n.a.	5,372
Australian Capital Territory	2,059	164	1,895	154	1,741
Australia	1,483,049	126,703	1,356,346	135,046	1,221,300

(a) No deduction has been made for depreciation and maintenance.

(b) No allowance has been made for costs of power, power kerosene, petrol and other oils.

**NET VALUE OF PASTORAL PRODUCTION(a): STATES AND TERRITORIES
1960-61 TO 1964-65**

Year	N.S.W. (b)	Vic.	Qld	S.A.	W.A.	Tas.	Aust.(c)
NET VALUE (\$'000)							
1960-61 . .	319,920	232,362	188,692	72,238	79,956	12,806	916,338
1961-62 . .	366,004	231,056	172,898	91,256	82,656	11,708	962,676
1962-63 . .	403,660	265,126	200,522	103,990	82,580	15,084	1,078,698
1963-64 . .	503,090	323,696	235,774	125,978	123,544	19,566	1,340,578
1964-65 . .	451,368	309,668	220,988	110,054	101,069	21,040	1,221,300

**NET VALUE PER HEAD OF POPULATION
(\$)**

1960-61 . .	82.5	80.3	125.5	75.5	109.6	36.6	88.2
1961-62 . .	92.7	78.1	113.2	93.1	110.8	32.8	90.8
1962-63 . .	100.5	87.7	129.3	104.1	108.0	41.7	99.8
1963-64 . .	123.1	104.7	149.9	123.5	157.9	53.4	121.6
1964-65 . .	108.6	97.7	138.4	105.5	126.7	57.2	108.6

(a) No deduction has been made for depreciation and maintenance. (b) No allowance has been made for costs of power, power kerosene, petrol and other oils. (c) Includes Northern Territory and Australian Capital Territory.

Indexes of quantum and price of pastoral production, 1960-61 to 1964-65

The quantum indexes shown in the following table relate to gross output of farm products valued at constant prices. The quantities of each farm product produced each year have been re-valued at the unit gross value for the period 1936-37 to 1938-39. The price indexes relate to average 'prices' of farm products realized in the principal markets of Australia. Average quantities of each product marketed in the period 1946-47 to 1950-51 have been used as fixed weights. For further details of the methods of calculating these indexes and of the weights used see the chapter Miscellaneous.

**INDEXES OF QUANTUM(a) AND PRICE OF PASTORAL PRODUCTION
AUSTRALIA, 1960-61 TO 1964-65**

(Base: Average 3 years ended June, 1939 = 100)

—	1960-61	1961-62	1962-63	1963-64	1964-65
Quantum(a) produced—					
Wool	165	174	170	183	183
Other products	136	144	154	158	158
<i>Total, pastoral</i>	152	160	163	172	172
Per head of population	100	104	104	107	105
Price—					
Wool	397	412	449	531	437
Other products	513	433	451	480	496
<i>Total, pastoral</i>	443	421	450	511	460

(a) Index of value at constant prices, i.e. quantities revalued at average unit values of base years 1936-37 to 1938-39.

Sheep

Distribution throughout Australia

With the exception of a short period in the early eighteen-sixties, when the flocks of Victoria outnumbered those of New South Wales, the latter State has occupied the premier position in sheep-raising, depasturing nearly one-half of the sheep of Australia.

A map showing the distribution of sheep in Australia at 31 March 1963 appears on page 1049 of Year Book No. 50. Graphs showing the number of sheep in Australia from 1870 onwards appear on plates 54 and 55 of this Year Book.

SHEEP: NUMBERS IN STATES AND TERRITORIES, 1937 TO 1965

('000)

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Average for three years ended—									
1939 . . .	51,202	17,845	21,889	8,916	8,972	2,460	23	251	111,558
1949 . . .	46,525	17,900	16,442	8,793	10,368	2,060	24	227	102,339
1959 . . .	67,006	26,615	22,537	15,285	15,609	3,259	25	265	150,601
At 31 March—									
1961 . . .	68,087	26,620	22,135	14,952	17,152	3,439	16	278	152,679
1962 . . .	69,498	27,533	22,125	16,415	18,314	3,531	10	286	157,712
1963 . . .	70,021	27,472	22,811	15,737	18,727	3,570	9	279	158,626
1964 . . .	71,764	28,413	24,337	16,403	20,165	3,600	10	289	164,981
1965 . . .	72,396	30,437	24,016	17,289	22,392	3,793	9	290	170,622

Except when affected by drought, the relative numbers of sheep in the different States have remained fairly constant in recent years. The percentage distribution in 1965 was: New South Wales, 43; Victoria, 18; Queensland, 14; South Australia, 10; Western Australia, 13; and Tasmania, 2.

Movement in sheep numbers

The following table shows the approximate movement in sheep numbers in Australia in each year from 1960-61 to 1964-65.

SHEEP AND LAMBS: ANALYSIS OF MOVEMENT IN NUMBERS, AUSTRALIA 1960-61 TO 1964-65

('000)

Year ended 31 March	Numbers at beginning of season	Lambs marked	Net exports	Sheep and lambs slaughtered (a)	Estimated deaths on farms (b)	Numbers at close of season
1961 . . .	155,174	39,792	171	32,582	9,534	152,679
1962 . . .	152,679	45,596	181	33,317	7,065	157,712
1963 . . .	157,712	45,146	247	33,944	10,041	158,626
1964 . . .	158,626	47,818	312	33,240	7,911	164,981
1965 . . .	164,981	47,608	307	33,549	8,111	170,622

(a) Includes an estimate for numbers boiled down.
died before marking.

(b) Balance figure; excludes lambs which

Comparisons of Australian flock numbers with those of certain other principal sheep producing countries are given on page 952.

Classification of sheep according to age, sex and breed

In the following table numbers of sheep in Australia are classified according to age and sex at 31 March.

SHEEP, BY AGE AND SEX: AUSTRALIA, 1961 TO 1965
(^{'000})

Description	1961	1962	1963	1964	1965
Rams, 1 year and over . . .	1,934	1,956	1,979	1,986	2,047
Breeding ewes (including ewes intended for mating) . . .	69,662	70,693	70,936	72,862	75,580
Other ewes, 1 year and over . . .	8,951	8,729	8,878	8,631	8,952
Wethers, 1 year and over . . .	42,912	43,021	44,267	46,203	49,284
Lambs and hoggets, under 1 year	29,220	33,313	32,566	35,299	34,759
Total, sheep and lambs . . .	152,679	157,712	158,626	164,981	170,622

Particulars of the principal breeds of sheep at 31 March 1965 (details are collected on a triennial basis) are shown in the following table.

SHEEP, BY PRINCIPAL BREED: STATES AND TERRITORIES, 31 MARCH 1965
(^{'000})

Breed	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Merino . . .	56,232	14,148	23,655	14,581	20,533	351	9	245	129,754
Other recognized breeds . . .	7,601	7,486	129	1,218	788	2,352	..	13	19,587
Merino comebacks (a) . . .	1,163	2,160	47	284	287	419	..	1	4,361
Crossbreds(b) . . .	7,400	6,643	185	1,206	784	671	..	31	16,920
Total . . .	72,396	30,437	24,016	17,289	22,392	3,793	9	290	170,622

(a) Merino comeback is the progeny of a crossbred Merino ewe and a Merino ram, i.e. finer than half-bred.

(b) Half-bred and coarser.

Imports and exports of sheep

The oversea exports of live sheep from Australia are of comparatively minor importance. On 27 November 1929 the export of stud Merino sheep was prohibited, except with the approval of the Minister for Primary Industry. Exports of sheep are now principally for slaughter overseas. Consignments for this purpose in recent years were made chiefly from Western Australia to Singapore. In 1964-65 the number of sheep exported was 286,205, valued at \$2,411,000 (1963-64, 327,607, valued at \$2,837,000). Since June 1958 an embargo has been imposed on the import of sheep in order to prevent the introduction of the disease blue-tongue.

Cattle

Objects of cattle-raising in Australia

Cattle-raising is carried out in all the States, the main object in certain districts being the production of stock suitable for slaughtering purposes and in others the raising of profitable dairy herds. While dairy cattle are restricted mainly to coastal districts, beef cattle are more widely distributed, particularly in the eastern States, and are raised in areas unsuitable for dairy cattle, such as the tropical area of northern Queensland, the Northern Territory and the Kimberley district in the north of Western Australia.

Distribution throughout Australia

Although cattle numbers declined after 1957 because of drought conditions and heavy slaughtering, they began to rise again in 1960 and in 1964 reached a record level of 19,055,000. Again because of drought in the eastern States, this figure declined to 18,816,000 in 1965.

A graph showing the number of cattle in Australia from 1870 onwards appears on plate 54.

CATTLE: NUMBERS IN STATES AND TERRITORIES, 1937 TO 1965

('000)

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Average for three years ended—									
1939 . . .	3,040	1,861	6,002	324	767	260	882	8	13,144
1949 . . .	3,122	2,153	5,971	443	830	244	1,006	9	13,778
1959 . . .	3,770	2,722	7,177	598	985	367	1,173	10	16,802
At 31 March—									
1961 . . .	4,242	2,864	7,004	561	1,100	394	1,154	13	17,332
1962 . . .	4,399	3,156	7,098	659	1,218	425	1,064	14	18,033
1963 . . .	4,569	3,225	7,233	679	1,298	444	1,087	14	18,549
1964 . . .	4,789	3,301	7,402	694	1,299	450	1,105	15	19,055
1965 . . .	4,619	3,316	7,393	697	1,258	451	1,068	14	18,816

Although the proportion was not as high as it has been in some previous years, Queensland was carrying 39 per cent of the cattle in Australia in 1965. The percentage in each State and Territory during that year was: New South Wales, 25; Victoria, 18; Queensland, 39; South Australia, 4; Western Australia, 7; Tasmania, 2; and Northern Territory, 5.

Maps showing the distribution of beef and dairy cattle in Australia appear on pages 1050 and 1082 of Year Book No. 50, and maps showing the distribution in earlier years were published in previous issues of the Year Book.

Classification of cattle

Following an investigation into the adequacy of the wording and arrangement of the cattle sections of the statistical forms used for recent Agricultural, Dairying and Pastoral Censuses, certain changes were made to the forms used for the Census conducted at 31 March 1964. Prior to 1964 farmers were asked to classify their herds as either 'beef cattle' or 'dairy cattle'. These two terms tended to cause confusion between breed and purpose, and in those instances where vealer production was carried on in association with dairying, farmers were in doubt how to classify part or all of their herds. From 1964 onwards farmers have been asked to classify their cattle according to the two main purposes of (i) milk production and (ii) meat production, irrespective of breed, and to report separately the number of cows and heifers kept for their own domestic milk supply. Consequently detailed statistics of cattle from 1964 are not comparable with earlier figures. However, four broad groupings of cattle are generally comparable with earlier years, and particulars for each year from 1961 to 1965 are shown below.

CATTLE: NUMBERS, AUSTRALIA, 1961 TO 1965

('000)

At 31 March—	Bulls one year and over	Cows and heifers one year and over	Calves under one year	Other	Total
1961	347	10,124	3,561	3,300	17,332
1962	366	10,543	3,872	3,252	18,033
1963	379	10,936	4,079	3,155	18,549
1964	377	11,138	4,254	3,286	19,055
1965	370	11,130	4,068	3,248	18,816

CATTLE, BY PURPOSE(a), AGE AND SEX, 31 MARCH 1964 AND 1965
(^{'000})

Classification	1965									1964 Aust.
	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T. (b)	A.C.T.	Aust.	
Bulls (1 year and over) used or intended for service—										
Dairy breeds	20	41	19	6	5	4	..	..	95	99
Beef breeds	67	32	109	10	20	4	33	..	275	278
Total bulls	87	73	128	16	25	8	33	..	370	377
Cattle used or intended for production of—										
Milk or cream for sale—										
Cows—In milk . . .	532	873	478	97	44	143	1	{ 1 1 }	3,012	3,078
Dry	186	314	211	61	70					
Heifers—Springing (within 3 months of calving) . . .	191	322	181	{ 24 26 }	26	43	..	..	843	821
Other (1 year and over)					30					
Calves (under 1 year)	146	309	121	38	33	43	..	..	690	718
Milk or cream for use on rural holdings—										
House cows and heifers . . .	105	29	44	7	11	6	..	..	202	218
Total cattle, production of milk, etc. . . .	1,160	1,847	1,035	253	214	235	1	2	4,747	4,835
Cattle for other purposes(c)—										
Cows and heifers (1 year and over)	1,793	675	3,125	223	531	91	629	6	7,073	7,021
Calves (under 1 year)(d) . . .	1,029	458	1,294	132	223	77	161	4	3,378	3,536
Other (1 year and over), i.e. steers, bullocks, speyed cows, etc.	550	263	1,811	73	265	40	244	2	3,248	3,286
Total cattle, other purposes	3,372	1,396	6,230	428	1,019	208	1,034	12	13,699	13,843
Total cattle and calves for all purposes	4,619	3,316	7,393	697	1,258	451	1,068	14	18,816	19,055

(a) Collected according to this classification for the first time in 1964. See text on p. 940. (b) As at 30 June 1965. (c) Mainly for meat production. (d) Includes vealers, and bull calves intended for service.

For beef cattle and dairy cattle numbers up to 1963 see pages 1056 and 1078 respectively of Year Book No. 50.

Meat research schemes

In November 1965 the Commonwealth Parliament passed legislation providing for the extension of the cattle and beef research scheme to cover beef, mutton and lamb research. Details of the beef research scheme were set out on page 1,050 of Year Book No. 51. Under the new legislation the Cattle and Beef Research Committee will be re-constituted as the Meat Research Committee and its powers and functions will be the same as the former Committee as widened to include mutton and lamb research. The Meat Research Committee will consist of twelve members—seven meat producer representatives, the Chairman of the Australian Meat Board, one representative from the Universities engaged in meat research, the Commonwealth Scientific and Industrial Research Organization, the Australian Agricultural Council, and the Department of Primary Industry. The new Committee will come into being on a date to be proclaimed and the Cattle and Beef Research Committee will cease to exist from that date.

The scheme will be financed from the Livestock Slaughter Levy (see below). The Commonwealth will make a matching contribution on a \$1 for \$1 basis to meet expenditure on research. The research will be conducted by existing bodies such as the Universities, C.S.I.R.O. and State Departments of Agriculture.

The Minister for Primary Industry has approved a beef research programme of just over \$2,000,000 for 1965–66. This is approximately the same amount as in the previous year.

The Livestock Slaughter Levy

The *Livestock Slaughter Act* 1964–1965 imposed a levy on all cattle (over 200 lb. dressed weight), sheep and lambs slaughtered within Australia for human consumption. These levies operated from 1 August 1964 and replaced the charge imposed on meat exports and also included

the cattle slaughter levy for beef research purposes imposed in 1960. (See page 909 of Year Book No. 51 for details.) The proceeds of the levies under the Livestock Slaughter Levy Act are for the purposes of meat market development (including the financing of the operations of the Australian Meat Board) and for research into the technical, scientific and economic problems of the meat industry. The rates of levy are not to exceed 75 cents for cattle, of which a maximum of 20 cents is for beef research, and 7.5 cents for sheep or lambs, of which a maximum of 3.75 cents is for sheep or lamb research.

Imports and exports of cattle

In 1964-65 the number of cattle exported was 9,425, valued at \$835,000 (1963-64, 7,634 valued at \$613,000). The bulk of the animals at present being exported are sent to the Philippines for slaughtering, the number exported thereto in 1964-65 being 4,685 head valued at \$332,000. Prior to June 1958 small numbers of cattle were imported, consisting mainly of valuable animals for stud purposes. Since that date an embargo has been imposed on the import of cattle in order to prevent the introduction of the disease 'blue-tongue'.

Comparison with other countries

The following table shows the number of cattle in Australia and in some of the principal cattle-raising countries of the world at the latest available date.

CATTLE: NUMBERS IN VARIOUS COUNTRIES

Source (for countries other than Australia): *World Agricultural Production and Trade*, United States Department of Agriculture

('000)

Country	Year and month	Number p
India(a)	1962 (May)	236,000
United States of America	1965 (January)	107,152
U.S.S.R.	1965 (January)	87,100
Brazil(a)	1964 (December)	81,515
China (Mainland)(a)	1960 (December)	65,400
Argentina	1965 (June)	43,000
Pakistan(a)	1961 (Estimate)	30,300
Mexico	1965 (Spring)	28,400
Ethiopia	1963 (Estimate)	22,000
France	1964 (October)	20,155
Australia	1965 (March)	18,816
Colombia	1964 (October)	16,000
Turkey(a)	1964 (December)	13,760
Germany, Federal Republic of	1964 (December)	13,044
South Africa	1965 (August)	12,500

(a) Includes buffaloes.

Horses

Distribution throughout Australia

About eighty per cent of the horses in Australia are in the States of New South Wales, Victoria and Queensland.

HORSES: NUMBERS IN STATES AND TERRITORIES, 1961 TO 1965

('000)

At 31 March—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1961.	192	65	224	27	40	9	40	1	598
1962.	168	61	217	25	40	9	41	1	562
1963.	166	58	212	25	39	8	38	1	547
1964.	163	56	206	(a) 25	39	8	38	1	(b) 536
1965.	158	56	201	(a) 24	37	7	36	1	(b) 520

(a) Estimated. (b) See South Australia.

The number of horses in Australia reached a peak of 2,527,000 in 1919. Since then it has declined, because of mechanization of transport and farming, at an average rate of 44,000 a year. A graph showing the number of horses in Australia since 1870 appears on plate 54.

The percentage distribution of the number of horses in each State and Territory for 1965 was: New South Wales, 30; Victoria, 11; Queensland, 39; South Australia, 5; Western Australia, 7; Tasmania, 1; and Northern Territory, 7.

Oversea trade in horses

Exports of horses in 1964-65 numbered 467, valued at \$658,000 (Australian produce 412 for \$408,000, re-exports 55 for \$250,000), made up of horses for breeding (177 valued at \$176,000), horses for racing (226 valued at \$452,000, shipped principally to Hong Kong, Malaysia and New Zealand), and horses for other purposes (64 valued at \$30,000). Horses imported into Australia in 1964-65 (715 valued at \$2,352,000) were mainly from the United Kingdom and New Zealand.

Pastoral products: wool

With about one-sixth of the world's woolled sheep, Australia produces almost one-third of the world's wool and more than half the world's fine-quality Merino wool. The bulk of the production is exported, mainly as greasy wool, although substantial amounts of scoured and carbonized wool, wool on sheep skins and small quantities of semi-manufactured wool are also shipped. The important position held by Australia among the principal sheep and wool producing countries of the world is shown in the table on page 952.

Wool marketing

Details of past wool marketing schemes and agreements, including the 1914-18 War Imperial Purchase Scheme, the British Australian Wool Realization Association Ltd., the 1939-45 War Acquisition Scheme, Joint Organization, and Minimum Reserve Price Plan, are given in previous issues of the Year Book.

More than ninety per cent of the Australian wool clip is disposed of at auction. (During both world wars, however, auction selling was suspended and replaced by bulk purchase schemes.) There are fourteen recognized wool-selling centres, namely Sydney, Goulburn, Newcastle, Albury, Melbourne, Geelong, Ballarat, Portland, Brisbane, Adelaide, Perth, Albany, Hobart, and Launceston. At these centres wool-selling brokers operate large stores where wool received from growers is held awaiting sale.

Each year a wool-selling programme is drawn up jointly by the selling brokers and wool-buyers on the basis of the expected clip. Selling dates and the quantities to be offered are then determined for each centre. Before each sale the selling brokers, who act as agents for the wool-growers, display a representative portion of the wool to be sold on show floors for buyers' inspection and valuation. Auction sales are attended by buyers purchasing on behalf of wool users in more than fifty countries.

Wool Marketing Committee of Inquiry

In 1961 the Commonwealth Government appointed an independent committee to inquire into the marketing and promotion of Australian wool and related matters (*see* Year Book No. 48, page 977, for further details). The Committee presented its report to the Government in 1962. Its most important recommendation was that wool promotion, research and testing should be brought under the control of a single body, which should also act as an advisory authority on wool marketing. This recommendation was implemented under the *Wool Industry Act* 1962, which set up the Australian Wool Board.

Australian Wool Board

This Board consists of a chairman, six woolgrower representatives, three members with special qualifications, and a representative of the Commonwealth Government. The first chairman of the Board was appointed by the Minister for Primary Industry after consultation with the Australian Wool Industry Conference (*see* page 944), but subsequent chairmen are to be appointed on the nomination of the Board. The six woolgrower representatives are appointed by the Minister on the nomination of the Wool Industry Conference, and the three members with special qualifications are appointed from a panel of names submitted by the Conference. The Act provides that the latter members must be experienced in one of the following fields: wool marketing and manufacturing, research, finance, and commerce.

When the Board came into being on 1 May 1963 it took over the functions of the Australian Wool Bureau. On 1 July 1963 the Australian Wool Testing Authority became part of the Board, and on 1 January 1964 the Board took over the functions of the Wool Research Committee. Information on these three former instrumentalities appears in Year Book No. 48, pages 977-81.

Following the organizational changes carried out under the Wool Industry Act, the functions of the Board embrace the following activities.

Wool promotion in Australia and overseas by publicity and other means. Promotion overseas is carried out through the International Wool Secretariat, which is maintained jointly by the Wool Boards of Australia, New Zealand and South Africa.

Provision of a testing service for wool and wool products. This service is administered by a subsidiary board retaining the name Australian Wool Testing Authority.

Administration of wool research. The Board is responsible for preparing annual programmes of research expenditure which are subject to the approval of the Minister for Primary Industry. Two committees established by the Board, the Wool Production Research Advisory Committee and the Wool Textile Research Advisory Committee, assist in this task.

Investigation into all aspects of wool marketing on a continuing basis. The Wool Marketing Committee, an ancillary body appointed by the Board, assists in carrying out this function. The Board is required to report to the Australian Wool Industry Conference on its findings and advise it on measures which should be adopted to meet changing marketing conditions. However, the Board has no executive powers over marketing.

In July 1964 the Board, after an investigation by the Wool Marketing Committee, made recommendations to the Australian Wool Industry Conference for the introduction of a Reserve Price Plan for wool, which were put to woolgrowers in a referendum in December 1965. For details see page 945.

Maintenance and administration of the wool stores which were entrusted to the Board by the Commonwealth Government. Further details concerning these stores appear in Year Book No. 48, page 978.

Other activities approved by the Minister for the benefit of the wool industry, including the operation of the Wool Statistical Service and the registration of wool classers. The Wool Statistical Service (described in more detail in Year Book No. 48, pages 977-8) provides comprehensive statistics on the Australian wool clip, while the registration of wool classers is designed to improve the standards of wool classing in Australia.

At present the main sources of finance for the various activities of the Board are a levy paid by woolgrowers and contributions by the Commonwealth Government.

The Australian Wool Industry Conference

This body was formed by woolgrowers in October 1962 to meet the need for an organization with sufficient authority to speak on behalf of the woolgrowing industry as a whole. It is not a statutory body and consists of twenty-five members each from the Australian Woolgrowers' and Graziers' Council and the Australian Wool and Meat Producers' Federation, and, from October 1965, five members from the Australian Primary Producers' Union. The fifty-five member conference is presided over by an independent chairman.

The Conference makes recommendations to the Commonwealth Government on policy matters concerning the wool industry. Under the Wool Industry Act it is the responsibility of the Conference to nominate woolgrower representatives for appointment to the Australian Wool Board and to prepare panels of names from which the three Board members with special qualifications are selected. Under the Wool Tax Acts (see below) the Conference is also responsible for recommending to the Commonwealth Government what rates of levy should be paid by woolgrowers to finance the activities of the Wool Board.

Wool Levy

Since 1936 a statutory levy has been collected from woolgrowers to finance wool promotion activities. The initial rate of 6d. (5c) a bale was increased at the request of woolgrowers to 2s. (20c) a bale in 1945 and 4s. (40c) a bale in 1952, the latter rate continuing until 1960. Further details regarding the operation of this levy prior to 1957 appear in Year Book No. 48, page 978.

Under legislation passed in 1957 provision was also made for the payment by woolgrowers of a contribution for wool research which was fixed at 2s. (20c) a bale. In 1960 the wool promotion levy was raised to 5s. (50c) a bale, and the following year it was increased further to 10s. (\$1) a bale. The operation of this rate was subsequently extended for 1962-63 and 1963-64.

On 1 July 1964 the basis of collecting the woolgrowers' combined levy for wool promotion and research was changed from the existing unit charge per bale to a percentage of the gross sale value of the wool. The maximum rate was set at 2 per cent and provision was made for annual adjustments to the operative rate, not greater than that maximum, to yield the required amounts. At the same time the levy for wool promotion was increased from 10s. (\$1) a bale to the equivalent of 27s. (\$2.70) a bale, but the levy for research remained unchanged at the equivalent of 2s. (20c) a bale. For 1964-65 the rate for the combined levy for wool promotion and research was set at $1\frac{1}{4}$ per cent and for 1965-66 it was at the full rate of 2 per cent.

The imposition and collection of the combined levy from woolgrowers is governed by six complementary Acts, the Wool Tax Acts (Nos. 1 to 5) 1964 and the *Wool Tax Administration Act* 1964.

Commonwealth Government's contributions to wool research and promotion

Since 1945 the Commonwealth Government has contributed to wool research on a statutory basis. Originally the contribution was equivalent to 2s. (20c) a bale. This was increased to 4s. (40c) a bale in 1957 and has remained unchanged since then.

Until 1964-65 the Commonwealth Government had not contributed to wool promotion, but in that year began contributing at the rate of about \$8,500,000 a year. This was the result of a request in July 1963 from the Australian Wool Industry Conference to the Government for assistance to the Australian Wool Board to finance its vastly increased commitments to the International Wool Secretariat (see page 944) for wool promotion overseas. The Secretariat had announced a five-year plan of expanded wool promotion activities that envisaged an increase in the Australian Wool Board's share of contributions to the Secretariat from its then \$5,000,000 to about \$20,000,000 a year.

The Government agreed in October 1963 to match \$1 for \$1 any increase in the growers' levy for promotion in excess of their current levy of 10s. (\$1) a bale for that purpose. In January 1964 the Conference agreed to increase the growers' levy to the equivalent of 27s. (\$2.70) a bale, which resulted in a Government commitment of 17s. (\$1.70) a bale. In terms of aggregate quantities this commitment required a Commonwealth Government contribution of about \$8,500,000 a year, commencing in 1964-65. This will be reviewed after three years.

Wool Reserve Prices Plan Referendum

On 9 December 1965 a compulsory referendum was held among Australian woolgrowers to decide whether or not they approved a plan of reserve prices for Australian shorn wool sold at auction. The plan originated from recommendations made by the Australian Wool Board to the Australian Wool Industry Conference. The chief object of the plan was to set a limit to extreme short-term falls in wool prices and so protect growers against exceptionally low returns.

The plan envisaged a scheme conducted as an integral part of the existing auction system and administered by a statutory marketing authority with the following financial resources for the buying-in of wool:

- (a) a fund of \$60 million to be provided by woolgrowers over a period of about seven years;
- (b) ready access to \$100 million credit to be provided by trading banks as and when required;
- (c) a Government guarantee to provide such further finance as might be required in excess of the total of \$160 million to be raised by (a) and (b) above, and special funds to be available to finance the administrative costs of the proposed scheme.

The plan provided for reserve prices to be set at conservative levels in accordance with certain criteria. If the commercial bidding on a lot being auctioned did not reach the reserve price, that lot would be bought-in by the marketing authority, with the grower thus receiving a minimum return. The authority would hold the wool until market conditions favoured its re-offer at auction. However, wool would not have been sold below the reserve prices operating at the time.

The Australian Government stated that it was prepared to legislate to implement the scheme, provided it received the approval of the majority of woolgrowers. However, the plan was rejected by 53.4 per cent of the enfranchised woolgrowers who voted at the referendum.

Wool production

Wool as shorn from the sheep contains an appreciable amount of grease, dirt and other extraneous matter, and is termed 'greasy wool'. The quantity of grease and other matter in a fleece differs not only between countries, but between districts in the same country. It fluctuates with the vagaries of the season, and with the breed and the condition of the sheep. To allow for this factor, the weight of greasy wool is sometimes given on a 'clean' basis, i.e. minus the estimated amount of impurities. The net wool fibre content of greasy wool, expressed as a percentage, is termed 'clean yield'.

From 1946-47 to 1952-53 the Australian Wool Realization Commission, and from 1953-54, the Wool Statistical Service, have assessed annually the clean yield of the Australian wool clip. During the period of assessment the clean yield showed a continuous rise up to 1951-52, when it reached 57.5 per cent. It has since fluctuated between 55.8 per cent and 57.7 per cent.

Wool scoured, washed and carbonized in Australia before export, however, has a clean yield somewhat lower than for the whole clip, because the grade of greasy wool treated locally for export as scoured, washed or carbonized includes a large proportion of dirty and low-grade wool. In recent years it has been slightly over 50 per cent. The quantity of this wool exported during 1964-65 was about 10 per cent of the total raw wool exports (excluding wool exported on skins) in terms of greasy. For the clean yield of Australian scoured wools exported a standard factor of 93 per cent is taken.

The production of wool in the States and Territories varies broadly in accordance with the number of sheep depastured and with seasonal conditions which affect clip per head (*see* page 947). In general, however, South Australia obtains from its large-framed Merinos a much heavier fleece per sheep than the Australian average, while Tasmania generally obtains from its predominantly non-Merino flocks a lighter fleece per sheep. In addition, as a result of better management (improved pastures, fodder conservation, better breeding, control of diseases, etc.), the long-term trend has been towards higher fleece weights.

The following table shows details of total wool (i.e. shorn, dead and fellmongered, and exported on skins) produced by each of the States and Territories during the years 1960-61 to 1964-65 compared with averages for the three-year periods ended 1938-39, 1948-49 and 1958-59. A graph showing the production of wool in relation to sheep numbers from 1870 onwards appears on plate 55 of this Year Book.

PRODUCTION OF WOOL (GREASY BASIS): STATES AND TERRITORIES, 1936-37 TO 1964-65

('000 lb.)

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Average for three years ended—									
1938-39 . . .	478,595	169,256	169,325	88,699	73,141	15,728	35	1,822	996,601
1948-49 . . .	439,363	200,229	151,679	108,126	95,031	16,272	305	1,927	1,012,932
1958-59 . . .	633,938	298,302	217,062	187,225	160,402	30,141	277	2,371	1,529,718
Year—									
1960-61 . . .	664,276	322,011	235,590	177,413	191,353	31,870	157	2,471	1,625,141
1961-62 . . .	701,168	330,716	230,333	206,985	192,161	34,469	98	2,645	1,698,575
1962-63 . . .	693,734	316,705	233,638	207,344	184,123	34,561	100	2,343	1,672,548
1963-64 . . .	731,316	334,288	255,386	210,500	216,574	34,007	91	2,552	1,784,714
1964-65 . . .	706,061	361,530	251,426	215,736	207,035	39,671	89	2,475	1,784,023

The bulk of the Australian wool production (about 91 per cent in recent years) is shorn from live sheep. The remainder is obtained by fellmongering (about 2 per cent) or is exported on skins (about 7 per cent). The following table shows details of total wool production according to method of obtaining wool, and also the gross value of wool produced. Gross value is based, for shorn wool, upon the average price realized for greasy wool sold at auction and, for skin wools, on prices recorded by fellmongers and skin exporters.

QUANTITY (GREASY BASIS) AND VALUE OF WOOL PRODUCED AUSTRALIA, 1936-37 TO 1964-65

Period	Shorn (incl. crutchings)	Dead and fell- mongered	Exported on skins	Total production	
				Quantity	Value
	'000 lb.	'000 lb.	'000 lb.	'000 lb.	\$'000
Average for three years ended—					
1938-39 . . .	889,338	49,280	57,983	996,601	106,850
1948-49 . . .	902,007	50,660	60,265	1,012,932	305,072
1958-59 . . .	1,411,424	36,804	81,490	1,529,718	788,290
Year—					
1960-61 . . .	1,472,092	37,509	115,540	1,625,141	680,860
1961-62 . . .	1,546,318	36,192	116,065	1,698,575	745,108
1962-63 . . .	1,515,932	32,854	123,762	1,672,548	800,524
1963-64 . . .	1,631,962	28,688	124,064	1,784,714	1,023,442
1964-65 . . .	1,629,412	26,865	127,746	1,784,023	840,552

Average fleece weight

The average weights of sheep and lamb fleeces shorn in each of the States and Territories of Australia are shown in the following table for each season from 1960-61 to 1964-65.

**AVERAGE WEIGHT OF FLEECES SHORN (SHEEP AND LAMBS)
STATES AND TERRITORIES, 1960-61 TO 1964-65**
(lb.)

State or Territory	1960-61	1961-62	1962-63	1963-64	1964-65
SHEEP					
New South Wales	9.48	10.06	9.94	10.19	9.81
Victoria	10.24	10.17	9.59	10.09	10.08
Queensland	9.93	9.89	9.83	10.41	9.65
South Australia	12.12	12.86	12.29	12.89	12.49
Western Australia	11.37	10.90	10.09	11.46	10.06
Tasmania	8.89	9.39	9.44	9.14	10.64
Northern Territory	9.00	8.50	10.94	10.36	9.26
Australian Capital Territory	9.18	9.87	8.88	9.59	9.07
Australia	10.12	10.41	10.11	10.60	10.15
LAMBS					
New South Wales	3.31	3.30	3.34	3.39	3.34
Victoria	2.96	2.92	2.82	2.76	2.97
Queensland	4.16	3.89	3.85	3.99	3.78
South Australia	3.55	3.81	3.63	3.71	3.79
Western Australia	2.84	2.84	2.55	2.91	2.69
Tasmania	2.30	2.23	2.35	2.12	2.31
Northern Territory . . . . .	..	2.33	5.00	4.34	3.88
Australian Capital Territory	1.56	1.66	1.80	1.61	1.93
Australia	3.27	3.25	3.20	3.26	3.24

Classification of wool according to quality

The following table provides a detailed analysis of wool sold at auction, according to quality, for the years 1960-61 to 1964-65. These data are compiled by the Wool Statistical Service on the basis of catalogues of auction sales. 'Quality' ('64's, 60's, 58's,' etc.) is a measure of the fineness and texture of wool for spinning purposes. Broadly, it means the maximum number of hanks of yarn, each of 560 yards length, which can be spun from 1 lb. of combed wool. For instance, wool of 64's quality is of a fineness and texture which will produce 64 hanks, each of 560 yards, from 1 lb. of tops (combed wool) of that particular wool.

**CLASSIFICATION OF GREASY WOOL SOLD AT AUCTION(a): AUSTRALIA
1960-61 TO 1964-65**
(Bales of approximately 300 lb.)

Pre-dominating quality	1960-61		1961-62		1962-63		1963-64		1964-65	
	Quantity	Per cent	Quantity	Per cent	Quantity	Per cent	Quantity	Per cent	Quantity	Per cent
70's and finer	122,534	2.7	115,434	2.4	138,238	3.0	132,620	2.7	145,267	2.9
64/70's	462,764	10.0	381,683	8.0	413,195	8.9	373,658	7.6	409,279	8.2
64's	633,919	13.8	572,549	12.1	582,315	12.5	567,559	11.6	620,453	12.5
64/60's	451,905	9.8	475,487	10.0	469,010	10.1	482,770	9.9	486,575	9.7
60/64's	947,627	20.5	1,048,912	22.1	1,043,674	22.4	1,149,957	23.4	1,108,668	22.2
60's and 60/58's	829,601	18.0	915,501	19.3	854,771	18.4	964,274	19.7	930,821	18.7
Total, 60's and finer	3,448,350	74.8	3,509,566	73.9	3,501,203	75.3	3,670,838	74.9	3,701,063	74.2
58's	555,237	12.0	578,588	12.2	527,493	11.3	566,904	11.6	586,708	11.8
56's	354,287	7.7	383,238	8.1	353,344	7.6	382,384	7.8	406,878	8.2
50's	140,457	3.0	146,657	3.1	135,256	2.9	141,638	2.9	153,079	3.1
Below 50's	43,552	0.9	49,875	1.1	45,631	1.0	45,675	0.9	51,534	1.0
Oddments	73,246	1.6	75,708	1.6	86,058	1.9	92,622	1.9	82,742	1.7
Grand total	4,615,129	100.0	4,743,632	100.0	4,648,985	100.0	4,900,061	100.0	4,982,004	100.0

(a) All greasy wool sold at auction except 'wool re-offered account buyer'.

Price and value

During 1964-65 the price of greasy wool sold in the selling centres of Australia averaged 47.8c per lb. compared with the average price of 58.1c per lb. in 1963-64 and 49.2c per lb. in 1962-63. These prices are as compiled by the National Council of Wool Selling Brokers and represent the average price realized for all greasy wool, of whatever type or quality, marketed during the years indicated.

Fluctuation in Australian wool prices has a marked effect on the nation's rural and national income. In 1945-46 the gross value of wool production was £58,597,000 (\$117,194,000), representing 17.4 per cent of the gross value of production of all rural industries, while in 1950-51, when prices reached a peak, wool was valued at £651,902,000 (\$1,303,804,000) or 55.6 per cent of the total value of production for all rural industries. The value of wool production fluctuated considerably in subsequent years. In 1964-65 it was £420,276,000 (\$840,552,000), 24.3 per cent of the gross value of production of rural industries.

ESTIMATED GROSS VALUE OF TOTAL WOOL PRODUCTION: STATES AND TERRITORIES, 1960-61 TO 1964-65(a)
('\$000)

Season	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1960-61 .	277,762	138,530	101,718	70,484	76,624	14,458	56	1,228	680,860
1961-62 .	309,840	148,438	101,274	85,800	82,520	15,752	36	1,448	745,108
1962-63 .	332,340	158,012	115,462	92,514	82,988	17,772	40	1,396	800,524
1963-64 .	416,834	208,700	141,458	113,410	119,862	21,352	50	1,776	1,023,442
1964-65 .	336,675	176,041	117,218	94,328	95,804	19,051	39	1,396	840,552

¹(a) Includes shorn, dead and fellmongered wool and wool exported on skins.

Stocks of wool

Stocks of raw wool held in Australia at 30 June 1965 amounted to 310.7 million lb. (greasy basis), of which 66.3 million lb. (45.3 million lb. as greasy and 21.0 million lb. as scoured and carbonized) were held by woollen mills, wool scourers and fellmongers, and 244.4 million lb., assumed to be all greasy, were held by brokers. Of the wool held by brokers, 85.8 million lb. were unsold wool and 158.6 million lb. were sold wool held awaiting shipment. These stocks exclude wool on skins, since this wool is not recorded as production until fellmongered in Australia or exported on skins.

Consumption of wool

Statistics of raw wool consumption published in recent years for the purposes of broad international comparisons are based on the quantities of scoured or carbonized wool used on the woollen and worsted systems (mill consumption), plus quantities used in such processes as felting. Consumption estimates compiled on this basis have obvious defects, as they disregard overseas trade in semi-processed wool (e.g. tops and yarns) as well as woollen goods. Estimates of raw wool used on the woollen and worsted systems and by felt manufacturers in Australia are shown in the following table for the years 1960-61 to 1964-65.

ESTIMATED CONSUMPTION OF RAW WOOL IN AUSTRALIA, 1960-61 TO 1964-65
('000 lb.)

Year	Greasy basis			Clean equivalent		
	Used on woollen and worsted systems	Used for felt manufacture (including hats)	Total	Used on woollen and worsted systems	Used for felt manufacture (including hats)	Total
1960-61 . . .	104,801	3,896	108,697	63,414	1,851	65,265
1961-62 . . .	117,555	4,328	121,883	70,682	2,056	72,738
1962-63 . . .	120,238	3,868	124,106	72,295	1,837	74,132
1963-64 . . .	126,678	3,568	130,246	75,688	1,695	77,383
1964-65 . . .	120,676	2,392	123,068	72,102	1,136	73,238

As considerable quantities of tops, noils and yarn are exported from Australia, the series on raw wool consumption shown above is over-stated to this extent. The series entitled 'Estimated consumption of processed wool in Australia' provides a more reliable indication of wool consumption in Australia, as allowance has been made for exports of wool in semi-processed form. This series is shown in the following table for the years 1960-61 to 1964-65. Briefly, the series measures consumption of wool in terms of yarn used in Australian mills and other factories to produce woollen cloth and other woollen goods, yarn used for hand knitting purposes, and scoured wool used for felt manufacture. No allowance has been made for oversea trade in woollen piece goods, clothing, etc., because of the obvious difficulties of estimating accurately the wool content of these products.

ESTIMATED CONSUMPTION OF PROCESSED WOOL IN AUSTRALIA
1960-61 TO 1964-65
('000 lb.)

Year	Greasy basis				Clean equivalent			
	Worsted yarn used (a)(b)	Woollen yarn used (b)	Scoured wool used for felt manufacture (including hats)	Total	Worsted yarn used (a)(b)	Woollen yarn used (b)	Scoured wool used for felt manufacture (including hats)	Total
1960-61 . . .	41,384	32,239	3,896	77,519	24,516	20,016	1,851	46,383
1961-62 . . .	45,173	29,316	4,328	78,817	26,543	18,143	2,056	46,742
1962-63 . . .	45,967	32,337	3,868	82,172	27,335	20,064	1,837	49,236
1963-64 . . .	46,684	30,777	3,568	81,029	27,155	18,966	1,695	47,816
1964-65 . . .	44,137	35,926	2,392	82,455	25,674	22,154	1,136	48,964

(a) Includes hand knitting yarns used.
and other fibres.

(b) Includes wool content of yarns containing a mixture of wool

Quantities of wool exported

Of the total shipments of greasy and slipe wool in 1964-65, 32 per cent went to Japan, 14 per cent to the United Kingdom, 9 per cent to France, 8 per cent to Belgium-Luxembourg and 7 per cent to Italy.

EXPORTS OF GREASY AND SLIPE WOOL: AUSTRALIA, 1960-61 TO 1964-65
('000 lb. actual weight)

Country of consignment	1960-61	1961-62	1962-63	1963-64	1964-65
Japan	411,782	416,970	386,956	433,944	424,175
United Kingdom	217,318	207,660	204,412	229,308	192,961
France	155,378	138,483	131,769	138,798	122,283
Belgium-Luxembourg	105,023	108,699	98,572	101,699	106,391
Italy	105,790	146,369	119,409	127,556	95,175
Germany, Federal Republic of	60,931	66,773	74,474	86,350	85,944
United States of America	17,234	35,024	46,314	27,590	67,093
U.S.S.R.	30,289	40,753	49,445	45,595	50,681
Mexico	14,865	15,225	15,126	19,085	28,065
Other	140,530	154,179	152,491	172,876	163,631
Total	1,259,140	1,330,135	1,278,968	1,382,801	1,336,399

**EXPORTS OF SCOURED AND WASHED, AND CARBONIZED WOOL
AUSTRALIA, 1960-61 TO 1964-65**
(^{'000} lb. actual weight)

Country of consignment	1960-61	1961-62	1962-63	1963-64	1964-65
United States of America	19,345	20,564	25,469	23,063	27,834
United Kingdom	20,234	15,344	17,497	17,566	12,812
Germany, Federal Republic of	8,470	8,267	7,314	7,517	8,997
Italy	7,691	9,636	8,582	8,340	6,292
Canada	5,339	5,470	2,981	3,398	4,966
Japan	6,105	7,055	5,796	4,891	4,122
Iran	1,853	2,322	3,173	2,428	3,513
France	4,659	5,089	4,251	3,205	3,268
Belgium-Luxembourg	1,504	1,566	1,541	1,413	2,466
China, Republic of (Formosa)	538	753	1,010	2,011	1,853
Other	21,624	23,238	24,299	14,385	11,330
Total	97,362	99,304	101,913	88,217	87,453

**EXPORTS OF CARDED OR COMBED WOOL, NOILS AND WOOLWASTE
AUSTRALIA, 1960-61 TO 1964-65**
(^{'000} lb. actual weight)

—	1960-61	1961-62	1962-63	1963-64	1964-65
Carded or combed—Tops	16,694	21,438	21,631	25,932	19,232
Other			10	177	17
Noils	4,372	3,957	4,794	5,006	4,066
Waste—Soft wool	2,322	2,580	3,121	2,661	2,393
Hard wool	3,088	2,154	3,181	3,448	2,595

The following table shows the estimated greasy and clean weights of exports of raw and semi-processed wool for the years 1960-61 to 1964-65. As the figures in the following table are in terms of 'greasy' or 'clean' basis, they differ from those in the preceding tables which represent actual weight shipped.

EXPORTS OF WOOL—GREASY AND CLEAN BASES: AUSTRALIA(a)
1960-61 TO 1964-65
(^{'000} lb.)

—	1960-61	1961-62	1962-63	1963-64	1964-65
GREASY BASIS					
Raw wool—					
Greasy and slipe	1,259,448	1,328,343	1,279,334	1,383,271	1,337,474
Scoured and washed and carbonized	182,668	184,249	191,208	162,871	161,384
Exported on skins	115,540	116,065	123,762	124,064	127,746
<i>Total, raw wool</i>	<i>1,557,656</i>	<i>1,628,657</i>	<i>1,594,304</i>	<i>1,670,206</i>	<i>1,626,604</i>
Semi-processed wool—					
Tops	30,049	40,089	39,368	47,483	35,024
Yarn	340	425	436	707	354
Grand total	1,588,045	1,669,171	1,634,108	1,718,396	1,661,982

(a) Includes re-exports.

EXPORTS OF WOOL—GREASY AND CLEAN BASES: AUSTRALIA(a)
1960-61 TO 1964-65—continued

('000 lb.)

	1960-61	1961-62	1962-63	1963-64	1964-65
CLEAN EQUIVALENT					
Raw wool	892,824	936,749	912,148	969,007	936,084
Semi-processed wool	17,890	24,039	23,394	28,167	20,681
Total	910,714	960,788	935,542	997,174	956,765

(a) Includes re-exports.

Value of wool exported

The value of wool (other than wool on sheepskins) exported from Australia during 1964-65 was 31 per cent of the total value of exports of merchandise of Australian origin, while the proportion for the five years ended 1964-65 averaged 34 per cent. The value for the five years ended 1964-65, together with the principal countries to which wool was exported, is shown in the following table.

VALUE OF WOOL EXPORTS: AUSTRALIA(a), 1960-61 TO 1964-65
(\$'000)

Country of consignment	1960-61	1961-62	1962-63	1963-64	1964-65
Japan	211,836	229,132	222,234	282,172	242,549
United Kingdom	111,118	106,582	114,004	153,528	110,015
United States of America	21,416	33,732	45,904	41,240	62,233
France	70,250	64,902	66,538	83,134	61,799
Italy	54,194	77,054	65,260	84,014	54,515
Germany, Federal Republic of	31,832	34,916	40,940	55,830	50,179
Belgium-Luxembourg	36,686	40,600	37,906	48,268	42,664
U.S.S.R.	15,486	22,898	29,142	33,990	31,681
Other	116,066	135,238	136,784	178,704	150,215
Total	668,884	745,054	758,712	960,880	805,850

(a) Excludes re-exports and wool exported on sheepskins.

World sheep numbers and wool production

The following table shows particulars of the woolled sheep numbers and total production of wool, in terms of greasy, in the principal wool-producing countries of the world, together with estimates of world production of merino, crossbred, and carpet type wool for the latest available years.

In 1964-65 Australia produced 31 per cent of the world total of all types of wool, the share of all British Commonwealth countries combined representing approximately 47 per cent. The principal wool producers, other than Australia, were New Zealand with 11 per cent of the world total, Argentina, 7 per cent, South Africa, 5 per cent, and United States of America, 5 per cent. Production in the U.S.S.R., China and eastern European countries together amounted to 19 per cent. World production of wool (all types) in 1964-65 exceeded the average for the years 1934 to 1938 by approximately 1,872 million lb. or 49 per cent.

Australia's wool clip is predominantly merino. New Zealand and Argentina produce mainly crossbred wool, while the clip of the U.S.S.R. is largely of the carpet type. World production of merino wool in 1964-65 was 43 per cent above the average for the years 1934 to 1938, and the production of crossbred types has risen by about 72 per cent. Carpet wool production has risen by about 29 per cent.

ESTIMATED WORLD WOOLLED SHEEP NUMBERS AND PRODUCTION OF WOOL, 1962-63 TO 1964-65

(Source (for countries other than Australia): Reports published by Commonwealth Economic Committee, London)

Country	Sheep numbers (million)			Wool production (million lb.—greasy basis)		
	1962-63	1963-64	1964-65 (a)	1962-63	1963-64	1964-65
British Commonwealth—						
Australia	159	165	171	1,673	1,785	1,784
New Zealand	50	51	54	620	617	623
Other Commonwealth countries .	84	85	85	278	273	275
<i>Total, British</i>	293	301	309	2,571	2,675	2,682
Foreign—						
U.S.S.R., China, eastern Europe(b)	243	238	229	1,148	1,152	1,100
Argentina	48	48	48	408	395	419
South Africa	34	34	34	300	303	296
United States of America . . .	30	28	27	300	287	264
Uruguay	22	22	22	190	192	187
Other foreign countries . . .	255	257	257	758	760	753
<i>Total, foreign</i>	631	627	616	3,104	3,089	3,019
Grand total	924	928	925	5,675	5,764	5,701
Type of Wool—						
Apparel type—						
Merino				2,277	2,353	2,318
Crossbred				2,177	2,195	2,166
Carpet type				1,221	1,216	1,217

(a) Provisional. (b) This group comprises Albania, Bulgaria, China and Dependencies, Czechoslovakia, East Germany, Hungary, Outer Mongolia, Poland, Romania, Tibet and U.S.S.R.

Principal importing countries and sources of supply

The following table, prepared from information published by the Commonwealth Economic Committee, furnishes, in respect of the principal importing countries, details of their production and imports of wool for 1964 together with the chief sources of supply. The quantities imported refer to the actual weight of wool, without distinguishing between greasy and scoured, except in the case of the United States of America, where estimated clean content of raw wool is quoted.

PRINCIPAL WOOL IMPORTING COUNTRIES AND SOURCES OF SUPPLY, 1964

(Source: Information published by Commonwealth Economic Committee, London)

(Million lb.)

Importing country	Pro- duction of importing country (a)	Quantity imported from— (b)					Total imports
		Australia	New Zealand	Argen- tina	South Africa	Other countries	
United Kingdom .	127	218.1	139.4	31.9	45.1	136.3	570.8
Japan	n.a.	418.0	28.5	17.0	29.3	4.8	497.6
France	54	121.9	94.6	26.5	42.2	19.0	304.2
Italy	28	128.4	33.3	14.7	36.4	45.5	258.3
Belgium	n.a.	116.2	49.2	12.0	9.9	45.5	232.8
Germany, Federal Republic of . .	13	87.7	32.4	15.8	36.8	53.4	226.1
United States of America(c) . .	287	43.8	61.7	35.2	19.0	52.3	212.0

(a) Greasy basis, 1963-64. (b) Actual weight of greasy and scoured wool. (c) Imports are in terms of estimated clean content of greasy and scoured wool. Actual weight of total United States of America imports was 283.1 million lb.

As a considerable transit trade exists between European countries, it must not be assumed that the whole of the imports recorded by these countries is retained for their own consumption. The countries chiefly concerned with the transit trade are the United Kingdom and Belgium.

Pastoral products: meat

Australian Meat Board

The Australian Meat Board, which was re-constituted under the *Meat Industry Act 1964*, is the body responsible for controlling the external marketing of Australian beef, mutton and lamb. Powers and membership of the Board prior to its re-constitution in 1964 are set out on page 801 of Year Book No. 40. The Board's primary function is to ensure that Australian meat exports are marketed in a manner which will safeguard the long-term interests of the Australian meat industry. It consists of representatives of producers, exporters and the Commonwealth Government, and an independent Chairman.

The Board regulates overseas marketing of Australian meat by means of an export licensing system. It has power of control over the kinds of meat that may be exported by licensed exporters to particular places, or to particular agents and representatives. The Board also has power to undertake measures to promote the sale and consumption of meat both in Australia and overseas, and it may purchase and sell meat in its own right for the purpose of market development. However, the exercise of this power is limited to activities aimed at meeting special marketing problems or circumstances which preclude the effective participation of private traders. The Board may also purchase and sell meat, with the approval of the Minister for Primary Industry, for the purpose of administering any international arrangements to which Australia may be a party. See also *Livestock Slaughter Levy*, pages 941-2.

United Kingdom long-term purchase arrangements

Details of the long-term meat contracts with the United Kingdom from 1939 to 1952 and of the Fifteen Year Meat Agreement (1952-67) are given on page 710 of Year Book No. 41 and in earlier issues. In September 1953 the trade in meat between the United Kingdom and Australia reverted to private traders. The main features of the arrangements were given in Year Book No. 47, page 960. Details of minimum prices operating and deficiency payments received in recent years under private trading appear in Year Book No. 48 (page 973) and No. 50 (page 1068).

Lamb Guarantee Scheme

Since the 1962-63 lamb export season the Australian Meat Board has guaranteed exporters a minimum price on all lambs 36 lb. and under shipped to the United Kingdom. For the 1962-63 and 1963-64 seasons these prices were set at 15c a lb. f.o.b. for the period September to November and 13.8c a lb. for the following three months, December to February. For the 1964-65 and

1965-66 lamb export seasons the corresponding prices were 15.8c a lb. and 14.6c a lb. The higher guaranteed price for the initial period was aimed at stimulating early shipments of lamb, because normally the most opportune time for selling Australian lamb in the United Kingdom market is early in the export season. Any commitment by the Board is payable from moneys accrued in the Lamb Deficiency Payments Account under the Fifteen Year Meat Agreement.

United States-Australia Meat Agreement

In February 1964 the Governments of Australia and the United States concluded an agreement for the regulation of beef, veal and mutton exports from Australia to the United States with the object of promoting the orderly development of the trade in these classes of meat between the two countries. The agreement sought to preserve approximately the current pattern of trade in beef and mutton and to permit Australia to obtain a reasonable share of the expected market growth. Under the agreement Australia undertook to limit its exports of beef, veal and mutton to the United States to 242,000 tons in 1964, 251,000 tons in 1965, and 260,000 tons in 1966. There is provision for this figure to be increased in succeeding years in accordance with the estimated rate of increase in the total United States meat market. The agreement is subject to review every three years and, as appropriate, the established annual rate of increase will be adjusted to apply to the succeeding three years.

In August 1964 the United States Congress passed a Bill providing for the imposition of quotas on imports of beef and veal, mutton, and goatmeat, from all sources, in 1965 and subsequent years, if imports of these items are estimated by the United States Department of Agriculture to equal or exceed 110 per cent of a basic quantity. The basic quantity, 323,840 tons, is approximately the average of imports from 1959 to 1963. This quantity may be increased or decreased in any future calendar year by a percentage equal to that by which the United States average annual commercial production of beef and veal, mutton and goatmeat has changed since the base period 1959-1963. For this purpose the level of domestic production is the average of estimated commercial production for the year in which quotas may be applied and the two preceding years. An increase of 22.7 per cent in the basic quantity was set for 1966, providing for allowable imports of approximately 397,300 tons and an import ceiling, at which quotas would be established, of about 437,000 tons. On the basis of the first official estimate of United States meat imports during 1966, the United States Secretary for Agriculture announced on 30 December 1965 that it would not be necessary to invoke meat import quotas for 1966. However, if a later quarterly estimate in 1966 indicated that the import ceiling would be equalled or exceeded then quotas could be imposed.

Cattle slaughtered

The numbers of cattle slaughtered during each of the years ended June 1961 to 1965 compared with averages for the three-year periods ended June 1939, 1949 and 1959, are shown in the following table.

**CATTLE (INCLUDING CALVES) SLAUGHTERED
STATES AND TERRITORIES, 1936-37 TO 1964-65**
(’000)

Period	Slaughterings passed for human consumption									Total slaughterings including boiled down
	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.	
Average for three years ended—										
1938-39 . . .	1,169	881	1,178	163	131	49	5	3	3,579	3,628
1948-49 . . .	1,094	759	1,119	168	146	42	14	4	3,346	3,378
1958-59 . . .	1,745	1,313	1,689	274	216	116	24	11	5,388	5,463
Year—										
1960-61 . . .	1,267	1,010	1,469	174	209	115	28	6	4,278	4,327
1961-62 . . .	1,609	1,311	1,584	201	241	136	25	8	5,115	5,167
1962-63 . . .	1,809	1,562	1,804	254	308	158	24	12	5,931	5,995
1963-64 . . .	1,930	1,760	1,857	279	373	176	50	12	6,437	6,484
1964-65 . . .	2,157	1,879	1,960	275	327	174	43	13	6,828	6,886

Production of beef and veal

Details of the production of beef and veal during each of the years ended June 1961 to 1965, compared with averages for the three-year periods ended June 1939, 1949 and 1959, are shown in the following table.

**PRODUCTION OF BEEF AND VEAL (CARCASS WEIGHT)
STATES AND TERRITORIES, 1936-37 TO 1964-65**
(^{'000 tons})

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Average for three years ended—									
1938-39 .	181	123	199	26	28	10	1	1	569
1948-49 .	160	106	206	27	30	9	3	1	542
1958-59 .	248	176	305	41	41	19	5	2	837
Year—									
1960-61 .	168	125	247	27	42	17	6	1	633
1961-62 .	234	176	278	30	47	20	4	2	791
1962-63 .	263	214	314	36	56	24	5	2	914
1963-64 .	286	228	327	40	66	26	10	2	985
1964-65 .	303	246	326	37	57	26	9	2	1,007

Consumption of beef and veal

The highest post-war consumption of beef and veal (including canned beef and veal) was 132.7 lb. per head in 1956-57. With the buoyant overseas market for beef and the high prices ruling in Australia during the following four years, consumption per head fell substantially, and in 1960-61 amounted to only 88.3 lb. In 1964-65 consumption per head was 102.5 lb., consisting of 99.3 lb. carcass weight and 3.2 lb. (carcass equivalent) of canned meat.

**PRODUCTION AND DISPOSAL OF BEEF AND VEAL (CARCASS WEIGHT)
AUSTRALIA, 1936-37 TO 1964-65**

Period	Net change in stocks	Production	Exports (a)	For canning	Apparent consumption in Australia	
					Total	Per head per year
	^{'000 tons}	^{'000 tons}	^{'000 tons}	^{'000 tons}	^{'000 tons}	lb.
Average for three years ended—						
1938-39 .	n.a.	569	121	18	430	140.3
1948-49 .	+ 1	542	101	67	373	109.1
1958-59 .	+ 5	837	209	85	538	123.8
Year—						
1960-61 .	+ 4	633	190	43	396	85.4
1961-62 .	+ 6	791	299	44	442	93.3
1962-63 .	(b)	914	384	45	485	100.4
1963-64 .	+ 4	985	423	43	515	104.6
1964-65 .	+ 3	1,007	457	48	499	99.3

(a) Includes carcass equivalent of boneless beef exported and all fresh and frozen meat shipped as ships' stores. (b) Less than 500 tons.

Exports of beef and veal

In 1964-65 chilled beef exports were 116,000 lb. valued at \$35,000, while frozen beef exports amounted to 679,873,000 lb. valued at \$192,369,000.

While beef and veal were previously shipped largely in carcass form, there has been in recent years a substantial increase in the amount of boneless beef exported. From 1958-59 to 1964-65 the quantity of boneless beef shipped exceeded that exported in carcass form. The trade in boneless beef has been developed principally with the United States of America. Since 1958-59 the United States has surpassed the United Kingdom as the principal market for Australian beef exports, the United Kingdom now occupying second place. The total value of beef and veal shipped to these two countries during 1964-65 was \$93,342,000 and \$64,847,000 respectively.

**EXPORTS OF FROZEN AND CHILLED BEEF AND VEAL(a): AUSTRALIA
1960-61 TO 1964-65**

Year	Exports of frozen and chilled beef		Exports of frozen veal		Exports of frozen and chilled beef and frozen veal	
	Quantity	Value	Quantity	Value	Quantity	Value
	'000 lb.	\$A'000 f.o.b.	'000 lb.	\$A'000 f.o.b.	'000 lb.	\$A'000 f.o.b.
1960-61 . . .	295,686	78,894	4,506	1,326	300,192	80,220
1961-62 . . .	444,762	116,172	5,834	1,508	450,596	117,680
1962-63 . . .	576,504	155,962	7,624	2,074	584,128	158,036
1963-64 . . .	620,614	173,724	9,489	2,798	630,103	176,522
1964-65 . . .	679,989	192,405	27,919	7,958	707,908	200,363

(a) Actual weight shipped, not carcass equivalent.

Sheep slaughtered

The following table shows the numbers of sheep slaughtered during each of the years ended June 1961 to 1965, compared with averages for the three-year periods ended June 1939, 1949 and 1959.

**SHEEP (INCLUDING LAMBS) SLAUGHTERED: STATES AND TERRITORIES
1936-37 TO 1964-65
('000)**

Period	Slaughterings passed for human consumption									Total slaughterings including boiled down
	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.	
Average for three years ended—										
1938-39 . . .	6,520	7,891	1,088	1,762	1,216	364	..	25	18,866	18,925
1948-49 . . .	6,367	6,413	1,066	1,863	1,458	396	3	47	17,613	17,650
1958-59 . . .	7,857	9,058	1,429	2,917	2,059	775	3	71	24,169	24,278
Year—										
1960-61 . . .	11,718	11,363	2,924	2,784	2,658	1,076	4	77	32,604	32,697
1961-62 . . .	11,526	12,467	2,417	3,140	2,489	1,160	3	86	33,288	33,373
1962-63 . . .	11,719	12,830	2,125	3,466	2,467	1,095	3	108	33,813	33,910
1963-64 . . .	11,934	12,628	2,407	2,996	2,137	1,127	3	117	33,349	33,440
1964-65 . . .	11,739	12,543	2,933	3,100	2,055	987	4	111	33,472	33,587

Production of mutton and lamb

Details of the production of mutton and lamb in each State and Territory in the years 1960-61 to 1964-65, compared with averages for the three-year periods ended June 1939, 1949 and 1959, are shown in the following table.

**PRODUCTION OF MUTTON AND LAMB (CARCASS WEIGHT)
STATES AND TERRITORIES, 1936-37 TO 1964-65**

(Tons)

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Average for three years ended—									
1938-39	103 111	136,927	20,121	30,574	20,928	6,129	2	413	318,978
1948-49	109 111	111,677	18,587	34,772	23,846	7,214	64	839	306,083
1958-59	135,256	164,580	25,845	50,415	35,373	14,077	77	1,240	426,863
Year—									
1960-61	196,417	210,245	48,529	52,242	46,560	18,925	98	1,292	574,308
1961-62	196,844	229,722	40,339	55,390	42,697	20,229	65	1,427	586,713
1962-63	198,873	237,645	35,483	58,919	41,236	19,386	68	1,849	593,459
1963-64	202,057	231,769	40,209	52,864	36,690	20,079	72	1,986	585,726
1964-65	195,236	230,318	47,984	55,392	35,839	18,123	88	1,856	584,836

Consumption of mutton and lamb

In 1959-60 consumption of mutton and lamb, at 103 lb. per head of population, showed a rise of approximately 15 lb. per head over the previous year and exceeded that of beef and veal for the first time on record. Subsequently, consumption of mutton and lamb combined has declined each year; since 1962-63 it has been below the consumption of beef and veal. The consumption in 1964-65 was 85.6 lb. per head.

**PRODUCTION AND DISPOSAL OF MUTTON AND LAMB
(CARCASS WEIGHT): AUSTRALIA, 1936-37 TO 1964-65**

Period	Net change in stocks	Pro-duction	Exports (a)	For canning	Apparent consumption in Australia	
					Total	Per head per year (lb.)
	('000 tons)	('000 tons)	('000 tons)	('000 tons)	('000 tons)	

MUTTON

Average for three years ended—						
1938-39	..	201	17	..	184	60.0
1948-49	..	177	15	8	154	45.1
1958-59	..	268	27	19	222	51.0
Year—						
1960-61	+1	368	60	14	293	63.2
1961-62	+1	368	83	23	261	55.3
1962-63	-2	363	107	8	250	51.6
1963-64	+1	361	112	10	238	48.3
1964-65	+4	361	116	10	232	46.2

LAMB

Average for three years ended—						
1938-39	..	118	72	..	46	15.0
1948-49	-1	130	45	..	86	25.2
1958-59	..	159	31	..	128	29.3
Year—						
1960-61	+1	207	29	..	177	38.2
1961-62	-1	219	18	..	202	42.8
1962-63	+1	231	27	..	203	42.1
1963-64	-1	225	21	..	205	41.7
1964-65	+1	224	26	..	197	39.3

(a) Includes carcass equivalent of boneless mutton exported.

Exports of frozen mutton and lamb

The quantities and values of exports of Australian frozen mutton and lamb in each year from 1960-61 to 1964-65 are shown in the following table.

**EXPORTS OF FROZEN MUTTON AND LAMB(a): AUSTRALIA
1960-61 TO 1964-65**

Year	Exports of frozen mutton		Exports of frozen lamb		Exports of frozen mutton and lamb	
	Quantity	Value	Quantity	Value	Quantity	Value
	'000 lb.	\$A'000 f.o.b.	'000 lb.	\$A'000 f.o.b.	'000 lb.	\$A'000 f.o.b.
1960-61	83,075	14,874	64,430	11,580	147,505	26,454
1961-62	109,113	16,312	37,399	5,248	146,512	21,560
1962-63	136,741	23,304	56,615	10,362	193,356	33,666
1963-64	149,918	24,752	41,606	7,718	191,524	32,470
1964-65	162,964	29,517	54,132	10,832	217,096	40,349

(a) Actual weight shipped, not carcass equivalent.

The principal customer for Australian frozen mutton and lamb is the United Kingdom, although Japan has become a major buyer of mutton in recent years and in 1964-65 exports of mutton to Greece increased sharply. The exports of mutton and lamb to the United Kingdom in 1964-65 represented 16 per cent and 71 per cent, respectively, of the total quantities exported. Twenty-three per cent of the mutton exported went to Japan and 21 per cent to Greece.

Consumption of meat and meat products

The apparent consumption of meat (including cured and canned meat) and edible offal per head of population in Australia is shown in the table below for the years 1960-61 to 1964-65 in comparison with the averages for the three-year periods ended 1938-39, 1948-49 and 1958-59.

**MEAT (INCLUDING CURED AND CANNED) AND EDIBLE OFFAL AVAILABLE FOR
CONSUMPTION: AUSTRALIA, 1936-37 TO 1964-65
(lb. per head per year)**

Period	Beef and veal (a)	Mutton (a)	Lamb (a)	Pork (a)	Offal	Canned meat (b)	Bacon and ham (c)	Carcass equivalent of meat and meat products (d)
Average for three years ended—								
1938-39	140.3	60.0	15.0	8.5	8.4	2.1	10.2	250.9
1948-49	109.1	45.1	25.2	7.1	8.9	2.6	11.7	215.7
1958-59	123.8	51.0	29.3	10.1	11.4	4.1	7.1	242.4
Year—								
1960-61	85.4	63.2	38.2	11.4	10.9	4.2	6.8	224.2
1961-62	93.3	55.3	42.8	13.6	11.7	3.8	7.0	232.3
1962-63	100.4	51.6	42.1	12.0	12.4	4.3	7.4	235.1
1963-64	104.6	48.3	41.7	11.5	12.9	4.3	7.3	235.3
1964-65	99.3	46.2	39.3	11.9	12.4	4.6	7.5	224.8

(a) Carcass weight. (b) Canned weight. (c) Cured carcass weight. (d) Includes offal.

Other pastoral products

Tallow

Details of tallow consumption are collected from the principal factories using tallow. Consumption of inedible tallow in these factories (soap and candle, chemical, pharmaceutical and toilet preparations, and woolscouring works) for the five years 1960-61 to 1964-65 was as follows: 1960-61, 1,158,000 cwt; 1961-62, 1,060,000 cwt; 1962-63, 1,090,000 cwt; 1963-64, 1,079,000 cwt; 1964-65, 1,159,000 cwt. These figures are, however, deficient to the extent that no allowance has been made for small unrecorded amounts used in other types of establishments. Details of edible tallow consumed in factories are not available.

Particulars of exports of edible and inedible tallow of Australian produce are shown in the following table for the five years 1960-61 to 1964-65.

TALLOW: EXPORTS, AUSTRALIA, 1960-61 TO 1964-65

(cwt)

—	1960-61	1961-62	1962-63	1963-64	1964-65
Edible . .	50,436	130,015	120,944	135,425	96,611
Inedible . .	968,540	1,853,161	2,229,230	1,976,000	1,846,543
Total . .	1,018,976	1,983,176	2,350,174	2,111,425	1,943,154

Overseas trade in hides and skins

The value of cattle and horse hides, sheep and other skins, and skin pieces sent overseas during 1964-65 amounted to \$79,534,000, compared with a total of \$91,180,000 in 1963-64 and \$73,420,000 in 1962-63.

Of the total exports of sheepskins with wool during 1964-65, amounting to 185,967,000 lb. valued at \$59,621,000, 120,945,000 lb. valued at \$37,887,000 (64 per cent of total value) were shipped to France, 22,735,000 lb. valued at \$8,218,000 (14 per cent) to Italy, and 13,998,000 lb. valued at \$4,112,000 (7 per cent) to the United Kingdom. In the previous year, also, France received 64 per cent (by value) of all sheepskins with wool exported, Italy 14 per cent and the United Kingdom 7 per cent. The exports of sheepskins with wool during each of the years 1960-61 to 1964-65 were as follows.

EXPORTS OF SHEEPSKINS WITH WOOL: AUSTRALIA
1960-61 TO 1964-65

—	1960-61	1961-62	1962-63	1963-64	1964-65
Number . . . '000	25,883	26,237	26,795	27,913	27,248
Value . . . \$'000	42,858	48,444	55,484	73,696	59,621

In 1964-65 sheepskins without wool to the value of \$167,000 (22 per cent) were shipped to the United States of America; \$164,000 (21 per cent) to France; \$128,024 (17 per cent) to the United Kingdom; \$85,000 (11 per cent) to Germany (Federal Republic); and \$40,106 (5 per cent) to the Netherlands. In 1964-65 a total of 1,459,000 sheepskins without wool were exported, valued at \$761,000. Since 1954-55 the number exported has exceeded two million once only (in 1958-59), and the value has averaged about \$648,000.

The export trade in cattle hides and calfskins during 1964-65 was distributed among the main importing countries as follows: Japan, \$5,598,000; Germany (Federal Republic), \$2,147,000; South Africa, \$1,048,000; Italy, \$1,015,000; China (Mainland), \$852,000; the Netherlands, \$725,000. The total quantity exported was 124,423,000 lb., valued at \$14,423,000.

The exports of furred skins in 1964-65 were valued at \$3,022,000, of which rabbit and hare skins constituted \$1,321,000. The highest total value exported, \$4,026,000, was recorded in 1955-56, when rabbit and hare skins accounted for \$3,421,000. In 1963-64 they accounted for \$1,846,000 out of a total of \$3,783,000. Skins were shipped principally to the United States of America, the United Kingdom, Italy, and Germany, the values shipped to each in 1964-65 being: United States of America, \$2,418,000; United Kingdom, \$268,000; Italy, \$135,000; and Germany (Federal Republic), \$84,000.

The quantity of cattle hides, including calfskins, imported into Australia during the year 1964-65 amounted to 3,452,000 lb. valued at \$451,000. The chief sources of supply are New Zealand and the Pacific Islands.

OTHER RURAL INDUSTRIES: DAIRYING, POULTRY AND BEE-FARMING

The dairying industry

The introduction of cattle into Australia and the early history of the dairying industry are treated in some detail in earlier issues of the Year Book. Australian dairy cattle have shown steady improvement in quality, as demonstrated by yield, over the years. This is attributable to improved breeding, associated with herd recording, and better feeding, resulting from the use of improved pastures. Better farming methods, arising from the development of modern farm machinery and the application of the results of research, have also played a part in the increased yields.

The Australian dairying industry is conducted under conditions ranging from tropical to temperate and Mediterranean type climates, and nowhere is it necessary to house cattle in the winter months. Most Australian dairy cattle are fed only on pasture and pasture products, and this accounts for average yields being somewhat lower than in those countries where stock are fed heavily on concentrated feed. In general, dairy farming is confined to the coastal and near coastal regions where rainfall and topography are favourable. These conditions are found in parts of the eastern, southern and south-western coasts. Inland districts include the lower north-east of Victoria, the south-western slopes of New South Wales, the fertile Darling Downs in Queensland, and the irrigated districts of the Riverina in New South Wales and northern Victoria.

The manufacturing and processing sections of the industry are highly organized and are well advanced technologically. Certain techniques and equipment developed in Australia are being adopted overseas. Dairy experts of the various State agricultural departments give instruction in approved methods of production, and inspect animals, buildings and marketable produce, with the result that a high standard of cleanliness and technology prevails in the industry.

Marketing of dairy products

The export trade is regulated by the terms of the Commonwealth *Customs Act* 1901-1954 and the Commonwealth *Commerce (Trade Descriptions) Act* 1905-1950 and regulations thereunder. This legislation requires that the true trade descriptions, etc. be marked on all produce intended for export, while official inspection ensures the maintenance of purity and quality. Upon request of the exporter the goods are given a certificate by the inspector.

Details of the *Dairy Produce Export Control Act* 1924-1965 and of the Australian Dairy Produce Board constituted under it, were given in earlier issues of the Year Book (see No. 48, pages 999-1000). The administrative expenses of the Australian Dairy Produce Board, and other sundry expenditure, were met from the proceeds of a levy imposed by the *Dairy Produce Export Charges Act* 1964 (see Year Book No. 51, page 1070). In 1965 this Act, together with the *Dairy Produce Levy Act*, 1958 was repealed by the *Butterfat Levy Act* 1965 (see page 961).

Equalization schemes

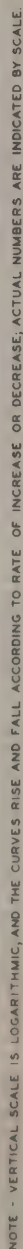
Reference is made to the butter and cheese equalization schemes in Year Book No. 48, pages 998-9. Particulars of the returns realized on local and oversea sales and of the average equalization rate for the years ended June 1961 to 1965 are given on page 968. Details are also given on page 966 of the wholesale prices of butter and cheese for home consumption as determined by the Commonwealth Dairy Produce Equalisation Committee Ltd.

An equalization scheme for casein similar to that for butter and cheese has been operated since 1952 by the Commonwealth Dairy Produce Equalisation Committee Ltd. Average realizations per cwt under the scheme were 174s. 10.9d. (\$17.491) in 1960-61, 163s. 3.4d. (\$16.328) in 1961-62, 159s. 0.9d. (\$15.908) in 1962-63, 161s. 0.1d. (\$16.101) in 1963-64, and 173s. 9.7d. (\$17.381) in 1964-65. The interim equalization value for 1965-66 has been fixed at \$24.00 per cwt.

Commonwealth subsidies and stabilization plans

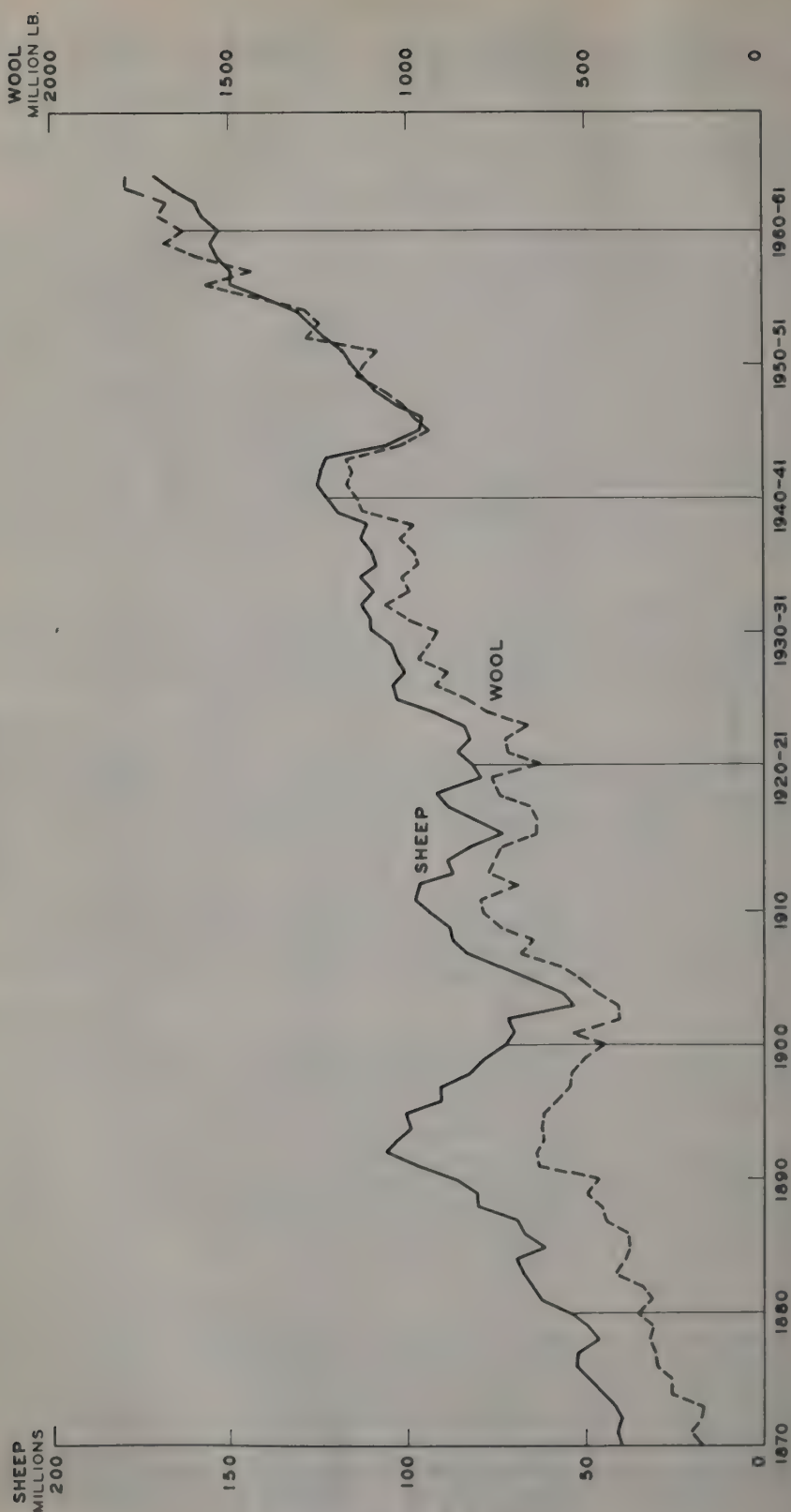
Butter, cheese and processed milk products. Under the provisions of the various Dairy Industry Assistance Acts, the first of which was passed in 1942, the Commonwealth Government has provided subsidies on milk supplied for the manufacture of butter and cheese. Subsidies were paid on a seasonal basis prior to 1 April 1946, but from that date have been on a flat rate basis. Subsidies are distributed by the Commonwealth Dairy Produce Equalisation Committee Ltd. through factories to milk producers by payments on butter and cheese manufactured. Subsidy on milk supplied for the manufacture of processed milk products was also payable from 1942 until 30 June 1948, and again from 1 July 1949, to 30 June 1952. The Commonwealth Government

RATIO GRAPH



SHEEP NUMBERS AND WOOL PRODUCTION: AUSTRALIA

1870 TO 1965



provided, under the *Processed Milk Products Bounty Act* 1962, for the payment of a maximum amount of \$700,000 as a bounty on exports of processed milk products in 1962-63. The bounty is to continue under present legislation until 30 June 1967, the maximum amounts made available being \$1,000,000 for 1963-64 and \$800,000 for each subsequent year.

Details of the three five-year stabilization plans which operated up to 30 June 1962 will be found in Year Book No. 49, page 1084.

Under the five-year stabilization plan which came into operation on 1 July 1962 a fixed bounty of \$27,000,000 has been provided for each year of the plan. The bounty is payable on butter, cheese and butterfat products containing 40 per cent or more of butterfat. Bounty is payable on the production of these commodities provided they are taken into equalization.

The Commonwealth Government extended for the full period of the plan the provision whereby it underwrites the final minimum equalized return to butter and cheese factories each year. The actual level at which returns are to be underwritten is to be decided prior to the commencement of each year of the plan. Returns to producers have been underwritten at 40d. (33c) per lb. on commercial butter each year since the inception of the underwriting arrangement in 1958. The principal value underlying this guarantee is that it enables the Commonwealth Dairy Produce Equalisation Committee Ltd. to make a higher initial payment to factories than would otherwise be possible without risk of overpayment.

Under the current plan the Dairy Industry Investigation Committee has been disbanded. This Committee was responsible, during the last five-year plan, for the determination of the cost of efficient production of butterfat. However, this determination is not required for the current plan.

The Australian Dairy Industry Council assumes responsibility for determining domestic wholesale prices of butter and cheese. Under the previous plan it was the responsibility of the Minister for Primary Industry to determine local prices, after consultation with the Council.

Amounts realised on exports of butter and cheese in excess of the f.o.b. equivalent of the guaranteed return have been credited to the Dairying Industry Stabilization Fund, which was established in July 1948 for the purpose of stabilizing returns from exports. During 1951-52 the Stabilization Fund met the deficiency in respect of all exports which did not earn sufficient to meet the basic return to the factory. From 1 July 1952 to 30 June 1957 it was available to the industry to be used, in whatever manner it considered desirable, to make good any deficiency in respect of all exports other than the 20 per cent provided for under the Commonwealth Government's Five-year Stabilization Plan. The Act was amended in 1957 to enable the Board to use the fund for such other purposes as are approved by the Minister for Primary Industry. The amount standing to the credit of the Dairying Industry Stabilization Fund at 30 June 1965 totalled approximately \$4,240,000. The major portion of the fund represents capital and other investments in milk recombining plants now established by the Board in Bangkok, Singapore and Manila.

Whole milk. In addition to the subsidies referred to above, the Commonwealth Government subsidized the production of whole milk consumed directly from 1943-44 to 1948-49. Details of the amounts distributed during each year will be found in Year Book No. 38, page 1031.

Extension, research and promotion of the dairying industry

Dairy Industry Extension Grant. An annual grant of \$500,000, to be expended by State Governments for the purpose of promoting improved farming practices in the dairying industry, was first made by the Commonwealth Government for the five years from 1 July 1948. This assistance was continued for further periods of five years from 1 July 1953 and from 1 July 1958 at the same rate. For the five years from 1 July 1963 the amount of the annual grant has been increased to \$700,000.

Dairy industry research and sales promotion. At the request of the Australian Dairy Industry Council, legislation was enacted in 1958 to provide for a sales promotion campaign for butter and cheese in Australia and also for research into industry problems. The legislation provided for a statutory levy on the manufacture of butter and cheese (the Dairy Produce Levy) which was initially set at rates of $\frac{1}{4}$ d. (.104c) per lb. for butter and $\frac{1}{16}$ d. (.052c) per lb. for cheese, the proceeds being divided equally between research and sales promotion. The rates of levy operative from November 1959 were $\frac{3}{16}$ d. (.156c) per lb. for butter and $\frac{3}{32}$ d. (.078c) per lb. for cheese, of which two-thirds was allocated to sales promotion and one-third to research.

In August 1964 the legislation was amended to include butter powder, at the same rates as for butter, and butter oil and ghee at $\frac{3}{16}$ d. (.065c) per lb. for research and $\frac{3}{32}$ d. (.130c) per lb. for sales promotion. In 1965 the Dairy Produce Levy Act was repealed and replaced by the *Butterfat Levy Act* 1965 which provides for the amalgamation of the three levies into one levy on butterfat used in the manufacture of butter, cheese and related products. The maximum rate of levy in the Act is 60 cents per cwt. of butterfat and the prescribed operative rate is 50 cents per cwt. (22 cents for promotion, 20 cents for administration and oversea market development, and 8 cents for research).

The Commonwealth Government agreed to contribute one half of the costs incurred on approved projects included in the programme of research, with a maximum contribution of \$1 for \$1 against funds raised by way of levy and allocated to research. The sales promotion programme is financed solely by the levy. The following table lists the amounts of levies collected for research and sales promotion during the five years 1960-61 to 1964-65.

DAIRY PRODUCE LEVY: AMOUNTS COLLECTED, 1960-61 TO 1964-65
(\$)

	1960-61	1961-62	1962-63	1963-64	1964-65
Research(a) . . .	233,182	260,000	263,500	264,200	262,800
Sales promotion . . .	466,362	520,000	527,000	528,400	543,000
Total collected(a) .	699,544	780,000	790,500	792,600	805,800

(a) Excludes amounts contributed by the Commonwealth Government.

The scheme is administered by the Australian Dairy Produce Board, which, in respect of research, is advised by a statutory committee, the Dairy Produce Research Committee.

Dairy cattle

For the reasons indicated earlier in this chapter (*see* page 940), farmers are no longer asked to classify their herds according to breed. Commencing with the 1964 census they have been asked instead to classify their cattle according to the two main purposes of (a) milk production and (b) meat production and to report separately the number of cows and heifers kept for their own domestic milk supply. Consequently the statistics shown in the following table are not comparable with those for earlier years.

DAIRY BREED BULLS, AND COWS AND HEIFERS USED OR INTENDED FOR PRODUCTION OF MILK OR CREAM: STATES AND TERRITORIES
31 MARCH 1964 AND 1965

State or Territory	Bulls, dairy breed (a)	Cows and heifers used or intended for production of milk or cream for sale					House cows and heifers (b)
		Cows		Heifers			
		In milk	Dry	1 year and over		Under one year	
				Spring- ing(c)	Other		
1964	99,270	3,078,075		821,286		717,895	218,098
1965—							
New South Wales	19,940	532,323	186,342	191,298		145,533	104,690
Victoria	40,500	873,288	313,550	321,897		309,151	29,154
Queensland . . .	18,789	477,727	211,656	181,019		121,293	43,659
South Australia	6,720	97,627	61,182	23,685	25,922	37,846	6,735
Western Australia	4,848	43,917	69,098	25,662	30,211	33,479	11,137
Tasmania	4,179	143,257		43,311		42,648	6,212
Northern Territory	9	325		73		72	89
Australian Capital Territory . . .	27	1,153	387	134		245	462
Australia . . .	95,012	3,011,832		843,212		690,267	202,138

(a) Used or intended for service; excludes bull calves (under 1 year). (b) Kept primarily for rural holdings' own milk supply. (c) Within three months of calving.

For particulars relating to dairy cattle numbers up to 1963 see page 1078 of Year Book No. 50.

A map showing the distribution of dairy cattle in Australia at 31 March 1963, appears facing page 1082 of Year Book No. 50.

Milking machines

The following table shows particulars of the number of milking machines on rural holdings in each State and Territory for the years 1961 to 1965.

MILKING MACHINES ON RURAL HOLDINGS: NUMBER OF UNITS(a)
STATES AND TERRITORIES, 1961 TO 1965

At 31 March	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
1961 . .	43,640	92,315	47,403	18,235	10,419	11,704	} n.a. { 23	99	(b)223,815
1962 . .	43,369	95,661	47,486	18,831	10,562	12,220		99	(b)228,228
1963 . .	43,089	97,372	46,674	18,836	10,514	12,701		84	(b)229,270
1964 . .	42,970	98,321	45,072	19,057	10,157	13,382		83	(b)229,042
1965 . .	42,209	101,994	44,074	19,135	10,055	13,806		93	231,389

(a) The number of units indicates the number of cows that can be milked simultaneously, i.e. the cow capacity of installed milking machines. (b) Excludes the Northern Territory.

Production of milk

The quantity of milk produced by a dairy cow can be as high as 1,000 gallons a year, and varies greatly with breed, locality and season. For all dairy cows and for all seasons for the whole of Australia prior to 1916 production averaged considerably less than 300 gallons per annum. Largely owing to an improvement in the quality of the cattle and the increased application of scientific methods the 300-gallon average was exceeded in each year since 1924. In the last five years an average of 449 gallons per cow per annum has been obtained. In 1964-65 the average yield was 467 gallons. The annual average yields per cow shown in the following table are obtained by dividing the total production of whole milk for the year ended June by the mean of the number of cows in milk and dry and house cows at 31 March of that year and of the preceding year. They are, in effect, based on the approximate number of cows which were in milk during any part of the year. The average shown is, therefore, less than that for cows which were yielding during the greater part of the year, but it may be accepted as sufficiently reliable to show the general trend.

AVERAGE MILK PRODUCTION PER COW: STATES AND TERRITORIES
1936-37 TO 1964-65
(Gallons)

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust. (b)
Average for three years ended—									
1938-39 . .	315	439	298	442	353	349	} n.a. {	349	354
1948-49 . .	310	506	267	565	370	419		328	371
1958-59 . .	322	522	267	513	406	537		420	393
Year—									
1960-61 . .	355	548	263	574	468	505	} n.a. {	447	418
1961-62 . .	387	571	306	614	462	562		471	452
1962-63 . .	364	586	312	586	442	570		479	452
1963-64(a) . .	368	587	307	587	448	577	230	557	456
1964-65(a) . .	347	613	306	614	490	589	248	547	467

(a) May not be comparable with earlier years: see page 962. (b) Excludes the Northern Territory before 1963-64.

In the following table particulars of the production of whole milk in the various States are shown for the years 1960-61 to 1964-65 compared with the averages for the three years ended 1938-39, 1948-49 and 1958-59. Victoria is the principal milk-producing State, and in 1964-65 the output from that State, 746 million gallons, represented 49 per cent of total production. Output from New South Wales in 1964-65 was 292 million gallons (19 per cent of the total) and that of Queensland 230 million gallons (15 per cent). Production in the remaining States accounted for 17 per cent.

TOTAL PRODUCTION OF WHOLE MILK: STATES AND TERRITORIES
1936-37 TO 1964-65
('000 gallons)

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.(a)
Average for three years ended—									
1938-39 . . .	319,003	403,152	275,898	68,429	42,358	32,803	} n.a. {	363	1,142,006
1948-49 . . .	280,460	445,517	252,469	92,587	49,004	32,638		573	1,153,248
1958-59 . . .	307,514	578,529	240,446	84,185	54,218	65,032		929	1,330,853
Year—									
1960-61 . . .	319,410	596,706	212,749	87,030	58,544	63,858	} n.a. {	1,005	1,339,302
1961-62 . . .	344,724	630,948	239,823	95,504	58,240	73,206		1,117	1,443,562
1962-63 . . .	324,113	667,562	245,067	95,378	56,029	78,518		1,090	1,467,757
1963-64 . . .	322,547	694,990	239,827	97,523	57,162	83,124	76	1,146	1,496,395
1964-65 . . .	291,931	745,896	230,289	102,330	61,883	87,343	98	1,094	1,520,864

(a) Excludes the Northern Territory before 1963-64.

Utilization of whole milk

The utilization of whole milk and the production of butter and cheese in 1964-65 is given in the table below.

UTILIZATION OF WHOLE MILK: STATES AND TERRITORIES, 1964-65
('000 gallons)

—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Milk used for—									
Butter . . .	135,027	520,142	149,990	33,435	35,581	64,621	..	..	938,796
Cheese . . .	8,177	61,142	19,313	37,857	3,979	5,265	..	..	135,733
Preserved milk products . . .	15,059	65,806	10,242	..	873	4,993	..	..	96,973
Other purposes . . .	133,668	98,806	50,744	31,038	21,450	12,464	98	1,094	349,362
Total . . .	291,931	745,896	230,289	102,330	61,883	87,343	98	1,094	1,520,864

In 1964-65, 62 per cent of the total milk supply was used for butter, 9 per cent for cheese, 6 per cent for preserved milk products, and 23 per cent for other purposes.

PRODUCTION AND UTILIZATION OF WHOLE MILK: AUSTRALIA
1936-37 TO 1964-65
('000 gallons)

Period	Total production	Quantity used for—			
		Butter (factory and farm)	Cheese (factory and farm)	Preserved milk products	Other purposes (a)
Average for three years ended—					
1938-39 . . .	1,142,006	891,742	54,934	33,226	162,104
1948-49 . . .	1,153,248	738,377	91,642	78,739	244,490
1958-59 . . .	1,330,853	865,347	90,561	79,687	295,258
Year—					
1960-61 . . .	1,339,302	839,596	104,470	76,619	318,617
1961-62 . . .	1,443,562	919,301	122,340	78,028	323,893
1962-63 . . .	1,467,757	932,041	130,503	83,167	322,046
1963-64 . . .	1,496,395	940,787	130,431	92,235	332,942
1964-65(b) . . .	1,520,864	938,796	135,733	96,973	349,362

(a) Principally fluid milk for domestic purposes. is included in 'Other purposes'.

(b) Milk used for farm production of butter and cheese

Production of butter, cheese and preserved milk products

The establishment of large central butter factories, either on a co-operative or independent basis, has resulted in a considerable reduction in the cost of manufacture. The product is also of a more uniform quality, and whereas formerly the average quantity of milk used per pound of hand-made butter was about three gallons, factory butter requires only about two gallons. In addition, subsidy payments by the Commonwealth Government are made only on factory-produced butter. As a result the production of farm-made butter has declined to negligible proportions. A similar position exists in the cheese-making industry.

In 1964-65 factories in Australia engaged in the processing of milk into butter or cheese or the various preserved milk products numbered 344 and were distributed among the States as follows: New South Wales, 70; Victoria, 120; Queensland, 69; South Australia, 43; Western Australia, 18; and Tasmania, 24. More details regarding numbers of factories, output, etc., are given in the chapter Manufacturing Industry (*see* page 137).

Factory production of butter in 1964-65 at 203,465 tons was 656 tons (0.3 per cent) more than the amount produced in 1963-64, and 2,326 tons (1 per cent) less than the record post-war production of 1955-56.

BUTTER PRODUCTION IN FACTORIES: STATES**1936-37 TO 1964-65****(Tons)**

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Average for three years ended—							
1938-39	49,665	61,566	52,637	7,977	5,803	3,934	181,582
1948-49	31,394	58,715	42,243	9,028	6,632	4,484	152,496
1958-59	33,832	87,659	38,131	7,509	6,812	10,618	184,561
Year—							
1960-61	33,997	89,356	31,081	6,858	7,661	10,256	179,209
1961-62	38,994	95,649	35,643	7,424	7,483	12,063	197,256
1962-63	35,968	101,431	36,456	7,319	6,963	13,097	201,234
1963-64	36,107	103,348	35,366	7,405	6,915	13,668	202,809
1964-65 p	29,948	111,282	32,833	7,687	7,809	13,906	203,465

Factory production of cheese was 61,389 tons in 1964-65 which was 2,850 tons (4.9 per cent) more than the previous record of 58,539 tons in 1962-63.

CHEESE PRODUCTION IN FACTORIES: STATES**1936-37 TO 1964-65****(Tons)**

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Average for three years ended—							
1938-39	3,280	7,206	5,277	6,866	427	1,424	24,480
1948-49	2,385	17,378	8,916	11,984	969	641	42,273
1958-59	4,368	17,607	6,844	11,218	1,127	335	41,499
Year—							
1960-61	5,473	19,977	7,222	12,609	1,352	348	46,981
1961-62	6,163	23,919	8,974	14,659	1,364	605	55,684
1962-63	5,524	25,569	10,201	15,164	1,438	643	58,539
1963-64	5,421	25,177	9,492	15,284	1,506	1,337	58,217
1964-65 p	4,129	27,270	8,525	17,338	1,783	2,344	61,389

Preserved milk products are manufactured mainly in Victoria, which produced 68 per cent of the total (in terms of whole milk equivalent) in 1964-65. New South Wales accounted for 15 per cent and the remaining States for 17 per cent.

PRODUCTION OF PRESERVED MILK PRODUCTS: AUSTRALIA
1936-37 TO 1964-65

('000 lb.)

	Average for three years ended—			1960-61	1961-62	1962-63	1963-64	1964-65 p
	1938-39	1948-49	1958-59					
Condensed, concentrated and evaporated milk—								
Full cream—								
Sweetened(a)	41,892	63,732	81,469	66,156	63,299	75,533	95,744	103,175
Unsweetened(b)			52,967	64,045	65,694	64,409	71,964	86,854
Skim			11,344	11,210	13,168	19,203	25,712	22,709
Ice cream mixes—								
Liquid	n.a.	12,372	7,954	7,716	8,228	8,612	11,896	12,549
Powder			1,297	1,248	1,360	1,341	973	786
Infants' and invalids' food(e)	2,533	22,808	31,119	36,415	38,137	38,465	44,105	45,179
Casein	n.a.	n.a.	21,695	25,178	30,356	36,236	37,360	39,612
Powdered milk—								
Full cream—								
Spray	21,199	28,524	38,300	38,353	42,211	37,829	40,069	40,437
Roller				8,772	3,211	1,874	2,110	2,104
Skim—								
Without added ingredients	(d)	10,712	66,659	67,138	69,525	76,689	70,190	82,137
Spray				10,607	10,177	10,845	12,783	13,581
Roller				5,027	4,738	4,808	4,854	5,297
With added ingredients—								
Baker's powder						1,834	4,303	5,124
Other								
Buttermilk or mixed skim and buttermilk—								
Spray	1,571	3,172	10,790	1,551	1,353	2,543	4,650	4,697
Roller				15,153	16,710	18,258	17,060	16,330
Total powdered milk	22,770	51,180	118,605	141,040	147,829	154,680	156,019	169,707

(a) Includes 'coffee and milk'. (b) Irrespective of butterfat content. (c) Not available separately—
included in condensed, concentrated and evaporated full cream milk. (d) Not available separately—
included in powdered full cream milk. (e) Includes malted milk and milk sugar (lactose).

Wholesale prices of butter and cheese in Australia

Details of prices operating in each of the States since 1 July 1952 are shown in the following table. The prices included are those determined by the Commonwealth Dairy Produce Equalisation Committee Ltd. for choicest grade bulk butter and cheese.

WHOLESALE PRICES OF BUTTER AND CHEESE: AUSTRALIA

1956 TO 1964

(\$ per cwt.)

Date from which prices became effective	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.
Butter—						
1 July 1956	46.67	46.67	46.55	46.43	46.67	46.67
1 July 1958	48.53	48.53	48.42	48.42	48.53	48.53
1 July 1960	50.17	50.17	50.05	50.17	50.17	50.17
19 June 1964	51.80	51.80	51.80	51.80	51.80	51.80
Cheese—						
1 July 1956	28.23	28.23	28.23	28.12	28.23	28.23
1 July 1958	29.17	29.17	29.17	29.17	29.17	29.17
1 July 1960	29.63	29.63	29.63	29.63	29.63	29.63
19 June 1964	30.57	30.57	30.57	30.57	30.57	30.57

Local consumption of butter and cheese

Following the cessation of butter rationing after the 1939-45 War, consumption per head rose to 31.2 lb. in 1951-52. However, in later years it gradually declined, and in 1964-65 it reached its lowest level since the war. At 22.6 lb. per head it was 3.4 per cent below the level of 1963-64. Consumption of cheese per head has been rising in recent years, reaching 7.2 lb. in 1963-64. This figure decreased slightly to 7.0 lb. in 1964-65.

**PRODUCTION AND DISPOSAL OF BUTTER AND CHEESE
AUSTRALIA, 1936-37 TO 1964-65**

Period	Change in stocks (a)	Production (b)	Exports (c)	Apparent consumption in Australia	
				Total	Per head per year
	('000 tons)	('000 tons)	('000 tons)	('000 tons)	(lb.)

BUTTER

Average for three years ended—					
1938-39 . . .	n.a.	190.8	89.4	101.4	32.9
1948-49 . . .	-3.6	157.1	76.0	84.7	24.8
1958-59 . . .	-0.6	187.4	69.6	118.4	27.2
Year—					
1960-61 . . .	+2.0	181.7	63.4	116.3	25.1
1961-62 . . .	+4.7	198.6	80.1	113.8	24.0
1962-63 . . .	+7.1	202.4	80.6	114.7	23.8
1963-64 . . .	-2.3	203.8	91.0	115.1	23.4
1964-65 p . .	-5.8	203.5	96.4	112.9	22.5

CHEESE

Average for three years ended—					
1938-39 . . .	n.a.	24.9	11.5	13.4	4.4
1948-49 . . .	-0.8	42.3	24.3	18.8	5.5
1958-59 . . .	+2.8	41.6	13.8	25.0	5.7
Year—					
1960-61 . . .	-0.8	47.1	18.1	29.8	6.4
1961-62 . . .	+2.2	55.7	22.4	31.1	6.6
1962-63 . . .	+0.2	58.6	26.0	32.4	6.7
1963-64 . . .	-5.0	58.2	27.9	35.3	7.2
1964-65 p . .	-1.1	61.4	27.2	35.3	7.0

(a) Balance figure for 1946-47 and subsequent years; includes allowance for imports. (b) Factory production only for 1964-65. (c) Includes ships' stores; figures for butter include ghee and butter concentrate expressed as butter.

Average returns from butter and cheese sold

The table below shows rates realized on local, interstate and overseas sales and the average equalization and subsidy rates in operation for the years ended June 1961 to 1965.

**BUTTER AND CHEESE: RATES REALIZED ON SALES, AVERAGE EQUALIZATION
RATES AND RATES OF COMMONWEALTH SUBSIDY UNDER DAIRY
INDUSTRY ASSISTANCE ACTS, 1960-61 TO 1964-65**

(Source: Commonwealth Dairy Produce Equalisation Committee Ltd.)

(\$ per cwt.)

Year	Rates realized on sales			Average equalization rate	Rate of subsidy	Rate of overall return to manu- facturer
	Local	Interstate	Overseas			
Butter—						
1960-61 .	48.138	46.266	26.198	39.969	6.894	46.863
1961-62 .	47.941	46.667	29.098	39.843	6.256	46.099
1962-63 .	47.863	46.492	32.675	41.152	6.150	47.302
1963-64 .	48.650	47.033	33.825	41.726	6.104	47.830
1964-65 .	..	..	..	(a) 41.750	6.087	47.837
Cheese—						
1960-61 .	28.391		21.150	25.610	2.847	28.457
1961-62 .	28.390		18.950	24.123	2.438	26.561
1962-63 .	28.391		20.282	24.224	2.333	26.557
1963-64 .	28.538		21.138	25.512	2.357	27.869
1964-65 .	..		..	(a) 25.800	2.228	28.028

(a) Interim rates.

The distribution between factory and farm of the overall return to manufacturers for butter is shown in the following table.

**COMMERCIAL BUTTER: AVERAGE OVERALL RETURNS
AUSTRALIA, 1960-61 TO 1964-65**

(Source: Commonwealth Dairy Produce Equalisation Committee Ltd.)

(Cents per lb.)

Year	Average overall returns on commercial butter		
	Rate of overall return to manufacturer	Estimated manufacturing cost	Return to dairy farmer
1960-61 . .	41.842	4.449	37.393
1961-62 . .	41.160	4.449	36.711
1962-63 . .	42.233	4.449	37.784
1963-64 . .	42.705	4.449	38.256
1964-65 . .	(a) 41.811	4.449	37.362

(a) Interim rates.

Overseas trade in dairy products

The production of butter and cheese in Australia is considerably in excess of local requirements, and consequently a substantial surplus is available for export overseas. In normal circumstances the extent of this surplus is chiefly dependent upon seasonal conditions.

Exports of butter in 1964-65 amounted to 202.2 million lb., compared with 196.6 million lb. in 1963-64. Exports of cheese in these years were 60.9 million lb. and 62.3 million lb. respectively. As in previous years, the principal importing country for Australian butter and cheese was the United Kingdom. In 1964-65, 84 per cent of butter and 59 per cent of cheese exported was consigned to the United Kingdom.

All butter and cheese exported comes under the provisions of the Exports (Dairy Produce) Regulations and is subject to supervision, inspection and examination by officers appointed for that purpose. These commodities are graded according to quality which has been fixed by regulation as follows: flavour and aroma, 50 points; texture, 30 points; and condition, 20 points. Butter and cheese graded at 93 to 100 points is of choicest quality; at 90 to 92 points, first quality; at 86 to 89 points, second quality; and at 80 to 85 points, pastry or cooking quality or, in the case of cheese, third quality.

In the following table particulars are given of the relative proportions of butter and cheese graded for export according to quality. Further details, which include actual quantities by States, are to be found in *Rural Industries*, 1963-64, Bulletin No. 2.

BULK BUTTER AND CHEESE GRADED FOR EXPORT
AUSTRALIA, 1962-63 TO 1964-65
(Per cent)

Grade	Butter			Cheese		
	1962-63	1963-64	1964-65	1962-63	1963-64	1964-65
Choicest	70.7	67.5	73.3	6.2	5.1	6.1
First quality	21.4	25.1	21.0	81.3	87.6	87.0
Second and third quality(a)	7.9	7.4	5.7	12.5	7.3	6.9
Total	100.0	100.0	100.0	100.0	100.0	100.0

(a) Includes rejected.

Exports of butter, cheese and other milk products of Australian origin are shown in the following table.

EXPORTS OF DAIRY PRODUCTS: AUSTRALIA, 1962-63 TO 1964-65

	Quantity ('000 lb.)			Value (\$A'000 f.o.b.)		
	1962-63	1963-64	1964-65	1962-63	1963-64	1964-65
Butter	173,399	196,563	202,240	47,186	54,714	62,165
Cheese	58,101	62,333	60,930	12,188	13,518	14,197
Other milk products—						
Preserved, condensed, concentrated, etc.—						
Sweetened	54,432	69,554	78,070	6,852	9,174	10,362
Unsweetened	5,077	8,337	11,678	608	941	1,328
Ice cream mixes	284	215	188	80	56	47
Infants' and invalids' food (essentially of milk)(a)	15,047	17,925	16,523	4,678	5,142	4,752
Casein	30,327	37,582	36,624	4,429	5,388	6,145
Dried or powdered—						
Full cream	14,263	15,260	18,737	4,452	4,281	5,248
Skim	53,467	40,505	56,098	3,884	2,985	5,885

(a) Includes malted milk.

Pigs

At 31 March 1965, 1,660,000 pigs were recorded, representing an increase of 192,500 (13.1 per cent) on numbers a year earlier. The number of pigs in each State and Territory at 31 March for each of the years 1961 to 1965 compared with the averages for the three-year periods ended 31 March 1939, 1949 and 1959, are given in the following table.

PIGS: NUMBERS IN STATES AND TERRITORIES, 1937 TO 1965

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Average for three years ended—									
1939 . . .	374,963	285,465	299,707	74,329	74,657	42,802	404	481	1,152,808
1949 . . .	366,267	261,922	375,191	101,934	91,862	43,184	424	554	1,241,338
1959 . . .	377,510	263,363	405,702	99,632	135,404	61,389	2,543	160	1,345,703
At 31 March—									
1961 . . .	455,345	318,523	448,279	143,645	175,675	70,882	2,845	109	1,615,303
1962 . . .	471,579	325,120	432,609	170,133	174,182	75,754	2,762	184	1,652,323
1963 . . .	391,999	297,791	402,498	144,976	130,791	70,002	1,842	92	1,439,991
1964 . . .	391,300	322,051	388,144	153,415	128,140	82,534	1,806	121	1,467,511
1965 . . .	448,661	378,055	406,028	195,873	137,192	92,021	2,182	(a)	61,660,012

(a) Not available for publication.

(b) Incomplete, excludes Australian Capital Territory.

A long-term comparison of pig numbers is given in the division Pastoral Production of this chapter (see page 936). A map showing the distribution of pigs in Australia at 31 March 1963 faces page 1083 of Year Book No. 50 and a graph showing the number of pigs in Australia from 1870 onwards appears on plate 54 of this Year Book.

The number of pigs slaughtered during each of the years 1960–61 to 1964–65, compared with the averages for the three-year periods ended 1938–39, 1948–49 and 1958–59, is shown in the following table.

PIGS SLAUGHTERED: STATES AND TERRITORIES, 1936-37 TO 1964-65 ('000)

Period	Slaughterings passed for human consumption									Total slaughterings (including boiled down)
	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.	
Average for three years ended—										
1938–39 . . .	562	503	530	155	109	65	1		1,925	1,961
1948–49 . . .	440	371	448	154	138	54	1		1,606	1,615
1958–59 . . .	594	439	474	159	191	94	5		1,956	1,968
Year—										
1960–61 . . .	655	513	554	183	194	111	9		2,219	2,229
1961–62 . . .	755	587	597	232	264	120	2	1	2,564	2,573
1962–63 . . .	688	528	604	234	237	116	2	7	2,416	2,424
1963–64 . . .	636	531	606	214	185	124	2	7	2,305	2,312
1964–65 . . .	674	599	623	241	182	135	3	5	2,461	2,468

Production of pigmeat, bacon and ham

In the following table details of the production of pigmeat in each State are shown for the years 1960–61 to 1964–65, together with the averages for the three-year periods ended 1938–39, 1948–49 and 1958–59.

PRODUCTION OF PIGMEAT (CARCASS WEIGHT)
STATES AND TERRITORIES, 1936-37 TO 1964-65
(Tons)

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Average for three years ended—									
1938–39 . . .	25,558	24,569	23,522	7,538	4,322	2,893	5	43	(a)88,450
1948–49 . . .	27,182	22,308	22,856	8,993	8,500	2,916	24	36	92,815
1958–59 . . .	28,272	23,097	23,180	8,778	9,624	4,156	84	209	97,400
Year—									
1960–61 . . .	29,048	25,550	27,289	9,574	10,550	5,057	150	240	107,458
1961–62 . . .	32,677	27,406	29,802	11,558	13,180	5,428	86	326	120,463
1962–63 . . .	30,283	25,086	29,619	11,810	11,731	5,461	69	328	114,387
1963–64 . . .	28,717	25,306	29,919	11,163	9,852	5,927	73	326	111,283
1964–65 . . .	31,509	28,048	31,259	12,656	9,861	6,585	90	218	120,226

(a) Excludes trimmings from baconer carcasses.

Production of bacon and ham amounted to 43,193 tons in 1964-65. This amount was 3.9 per cent above the amount of 41,538 tons produced in 1963-64. The record output of 56,246 tons was attained in 1944-45.

PRODUCTION OF BACON AND HAM (CURED CARCASS WEIGHT)(a)
STATES, 1936-37 TO 1964-65

(Tons)

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Australia
Average for three years ended—							
1938-39 . . .	10,396	7,556	8,759	2,940	1,838	1,022	32,511
1948-49 . . .	14,436	10,787	9,846	4,580	4,209	1,196	45,054
1958-59 . . .	11,132	8,302	10,294	3,275	2,987	1,078	37,068
Year—							
1960-61 . . .	11,328	9,211	9,442	3,141	3,169	1,120	37,411
1961-62 . . .	11,145	9,102	12,221	2,757	3,512	1,131	39,868
1962-63 . . .	12,827	9,004	11,449	3,355	3,844	1,182	41,661
1963-64 . . .	13,503	8,629	10,843	3,605	3,792	1,166	41,538
1964-65 . . .	13,923	9,366	11,086	3,822	3,896	1,171	43,264

(a) Pressed and canned bacon and ham have been converted to cured carcass weight for periods subsequent to 1948-49.

Consumption of pigmeat, bacon and ham

Apparent consumption of pigmeat per head in 1964-65 was 11.9 lb., compared with 11.5 lb. per head in 1963-64. The 1961-62 level of 13.6 lb. was the highest since the war. In recent years annual consumption of pigmeat per head has not fallen below 11 lb.

PRODUCTION AND DISPOSAL OF PIGMEAT (CARCASS WEIGHT)
AUSTRALIA, 1936-37 TO 1964-65

Period	Change in stocks (a)	Production	Exports	Curing and canning	Apparent consumption (as pork or smallgoods) in Australia	
					Total	Per head per year
	'000 tons	'000 tons	'000 tons	'000 tons	'000 tons	lb.
Average for three years ended—						
1938-39 . . .	..	88.5	13.7	48.6	26.2	8.5
1948-49 . . .	-1.2	92.8	6.3	63.4	24.3	7.1
1958-59 . . .	..	97.4	0.8	53.0	43.6	10.1
Year—						
1960-61 . . .	+0.8	107.5	0.4	53.3	53.0	11.4
1961-62 . . .	-0.7	120.5	0.9	55.9	64.4	13.6
1962-63 . . .	-1.8	114.4	0.2	58.0	58.0	12.0
1963-64 . . .	-3.1	111.3	0.2	57.5	56.7	11.5
1964-65 . . .	-0.4	120.2	0.4	60.5	59.8	11.9

(a) Includes allowance for imports.

PRODUCTION AND DISPOSAL OF BACON AND HAM (CURED CARCASS WEIGHT): AUSTRALIA, 1936-37 TO 1964-65

Period	Change in stocks	Production	Exports	Canning	Apparent consumption in Australia	
					Total	Per head per year
	'000 tons	'000 tons	'000 tons	'000 tons	'000 tons	lb.
Average for three years ended—						
1938-39 . . . .	..	32.5	1.0	..	31.5	10.2
1948-49 . . . .	..	45.1	3.1	2.1	39.9	11.7
1958-59	+0.1	37.1	0.5	6.0	30.5	7.1
Year—						
1960-61	+0.1	37.4	0.3	5.3	31.7	6.8
1961-62 . . . .	..	39.9	0.1	6.8	33.0	7.0
1962-63	-0.1	41.7	0.1	5.7	36.0	7.4
1963-64	-0.1	41.5	0.1	5.4	36.1	7.3
1964-65	+0.1	43.2	0.1	5.1	37.9	7.5

Exports of pigs and pig products

Total quantities and values of exports of pigs and pig products of Australian origin for the years 1962-63 to 1964-65 are given in the following table.

EXPORTS OF PIGS AND PIG PRODUCTS: AUSTRALIA, 1962-63 TO 1964-65

		Quantity			Value (\$A'000 f.o.b.)		
		1962-63	1963-64	1964-65	1962-63	1963-64	1964-65
Bacon and ham (including canned)	'000 lb.	216	186	379	118	120	259
Lard	'000 lb.	246	95	231	48	22	32
Frozen pork	'000 lb.	482	370	818	167	133	324
Pigs, live	number	113	547	n.a.	10	80	n.a.

The poultry industry

Originally the poultry industry was conducted in conjunction with other branches of rural activity, mainly dairying, but it is now a specialized and distinct industry. It is from this source that the bulk of the commercial production is obtained. Practically all farm households keep poultry for the purpose of supplying their own domestic requirements, and some supplies from this source are also marketed. In addition, many private homes in both rural and suburban areas keep small numbers of fowls in back-yard runs to help satisfy domestic needs. Because of the incompleteness of data available on poultry throughout Australia, details of poultry numbers are not published.

Marketing of eggs

Details of the annual contracts entered into between the United Kingdom and Australian Governments up to 1952-53 and of the results of trading under free market conditions in the four years following appear in previous issues of the Year Book.

Over the period 1954-55 to 1964-65 Australian exports of shell eggs fell by 84 per cent. In 1964-65 they amounted to 3,327,000 dozen compared with 3,599,000 dozen in 1963-64. The main outlets for Australian eggs in 1964-65 were Kuwait (1,359,000 dozen), Saudi Arabia (364,000 dozen), and Qatar (257,000 dozen).

The United Kingdom provides the major export market for egg pulp. Australian exports of pulp to that country were approximately 3,554 tons in 1963-64 and 6,793 tons in 1964-65. In 1964-65 the United Kingdom absorbed the bulk of the exports of dried eggs (151,000 lb.) also.

Details of the *Egg Export Control Act 1947* were given in earlier issues of the Year Book (see No. 47, page 997).

Recorded production of eggs and egg products

Available statistics of the production and disposal of eggs in Australia are restricted to those recorded by the Australian Egg Board and the Egg Marketing Board of New South Wales. Details of production as recorded by these authorities are shown in the following table.

SHELL EGGS: PRODUCTION^(a) RECORDED BY EGG BOARDS STATES, 1960-61 TO 1964-65 (*000 dozen)

State	1960-61	1961-62	1962-63	1963-64	1964-65
New South Wales ^(b)	62,157	61,657	54,609	56,713	62,918
Victoria	28,215	29,939	26,793	25,141	28,016
Queensland	10,810	10,176	11,290	12,464	14,181
South Australia	10,492	11,388	9,816	8,732	9,379
Western Australia	7,333	7,558	7,796	8,331	9,620
Tasmania	n.a.	n.a.	n.a.	n.a.	n.a.
Total^(c)	119,007	120,718	110,304	111,381	124,114

(a) Receipts from consignors and sales by producer agents. (b) Includes Australian Capital Territory.
(c) Excludes Tasmania.

Particulars of the production of whole egg pulp as recorded by the Egg Marketing Board for the State of New South Wales and by the Australian Egg Board for the other States are shown in the following table.

LIQUID WHOLE EGG PULP: PRODUCTION RECORDED BY EGG BOARDS STATES, 1960-61 TO 1964-65 (*000 lb.)

State	1960-61	1961-62	1962-63	1963-64	1964-65
New South Wales	21,496	20,916	11,500	9,272	18,463
Victoria	7,948	12,000	7,684	3,216	5,512
Queensland	3,716	3,321	3,864	3,922	5,731
South Australia	3,394	3,374	2,836	3,001	2,639
Western Australia	916	620	533	835	1,450
Tasmania	n.a.	n.a.	n.a.	n.a.	n.a.
Total^(a)	37,470	40,231	26,417	20,246	33,795

(a) Excludes Tasmania.

In addition to liquid whole egg, production was also recorded of liquid egg whites and liquid egg yolks. Output in 1964-65 amounted to 2,984,000 lb. and 2,134,000 lb., respectively, compared with 2,767,000 lb. and 1,984,000 lb., respectively, in the previous year. These figures exclude small quantities produced in Tasmania for which details are not available.

Consumption of eggs and egg products

Because of the operations of producers in areas outside the control of the Egg Boards and the extent of 'back-yard' poultry-keeping, for which no statistics are collected, figures relating to total egg production must be accepted with some reserve. The production shown in the following table, together with details of exports and consumption, is based upon the records of Egg Boards of production from areas under their control, plus estimates of production from uncontrolled areas and from 'back-yard' poultry-keepers.

**ESTIMATED PRODUCTION AND DISPOSAL OF EGGS IN SHELL
AUSTRALIA, 1936-37 TO 1964-65**

Period	Change in stocks	Estimated total production	Exports (a)	For drying and pulp(b)	Apparent consumption in Australia	
					Total	Per head per year
Average three years ended—	mill. doz.	mill. doz.	mill. doz.	mill. doz.	mill. doz.	dozen
1938-39 . .	-0.1	152.7	13.0	5.5	134.3	19.5
1948-49 . .	+0.1	204.7	17.7	39.1	147.8	19.3
1958-59 . .	..	189.9	9.6	23.0	157.3	16.1
Year—						
1960-61 . .	-0.3	212.1	6.2	36.9	169.3	16.3
1961-62 . .	-0.1	215.8	5.8	35.5	174.6	16.4
1962-63 . .	-0.3	207.2	4.6	23.8	179.1	16.6
1963-64 . .	+1.2	210.1	4.3	21.0	183.6	16.7
1964-65 . .	+0.1	225.0	4.2	32.0	188.7	16.8

(a) Includes ships' stores. (b) Includes wastage.

Details of the annual consumption of shell eggs, liquid whole egg and total shell egg equivalent per head of population are shown in the following table.

**SUPPLIES OF EGGS AND EGG PRODUCTS
AVAILABLE FOR CONSUMPTION: AUSTRALIA
1936-37 TO 1964-65
(Per head per year)**

Period	Eggs in shell	Liquid whole egg and egg powder (a)	Total	
			Number	Weight(b)
Average for three years ended—	number	number		lb.
1938-39 . .	235	8	243	26.6
1948-49 . .	232	23	255	27.9
1958-59 . .	194	12	206	22.5
Year—				
1960-61 . .	195	15	210	(c) 26.3
1961-62 . .	197	14	211	(c) 26.4
1962-63 . .	199	11	210	(c) 26.2
1963-64 . .	200	14	214	(c) 26.7
1964-65 . .	202	13	215	(c) 26.9

(a) In terms of number of eggs in shell. (b) The average weight of an egg in Australia was taken as 1.75 oz. for years prior to 1960-61. From 1960-61 the average weight has been taken as 2 oz. (c) Not comparable with earlier years; see footnote (b).

Oversea trade in poultry products

Details of the exports of poultry products in each of the years 1962-63 to 1964-65 are shown on page 975.

EXPORTS OF POULTRY PRODUCTS: AUSTRALIA
1962-63 TO 1964-65

		Quantity			Value (\$'000 f.o.b.)		
		1962-63	1963-64	1964-65	1962-63	1963-64	1964-65
Eggs in shell	'000 doz.	3,943	3,599	3,327	1,206	1,153	921
Eggs not in shell—							
In liquid form.	'000 lb.	18,920	9,493	17,119	3,802	2,228	3,840
Dry	'000 lb.	3	421	158	4	168	123
Frozen poultry	'000 lb.	318	501	792	142	226	331
Poultry, live(a)	number	550,362	1,027,871	735,911	146	258	184

(a) Includes day-old chicks.

For a number of years prior to 1961-62 there were considerable imports of canned chicken from the United States of America. In 1960-61 the quantity imported was 2,016,000 lb. valued at \$454,000, but the trade had declined to 150,000 lb. valued at \$29,000 in 1964-65.

The bee-farming industry

Production of honey and bees-wax

Although practised as a separate industry, bee-farming is also carried on in conjunction with other branches of farming. In recent years there has been considerable growth in the number of itinerant apiarists operating on a large scale with mobile equipment. Some of these apiarists move as far afield as from Victoria to Queensland in an endeavour to provide a continuous supply of nectar from flora suitable for their bees. The returns of honey from productive hives during 1964-65 show an average of 129.0 lb. per hive, and the average quantity of wax was 1.7 lb. per productive hive.

BEEHIVES, HONEY AND BEES-WAX: STATES AND A.C.T., 1964-65

State or Territory	Beehives(a)			Honey produced		Bees-wax produced	
	Pro- ductive	Unpro- ductive	Total	Quantity	Gross value	Quantity	Gross value
	'000	'000	'000	'000 lb.	\$'000	'000 lb.	\$'000
New South Wales . . .	120	65	185	13,701	1,896	185	89
Victoria	72	27	99	9,180	1,377	105	51
Queensland	29	13	42	3,794	380	52	24
South Australia	59	14	73	6,527	561	90	37
Western Australia . . .	39	10	49	8,066	520	106	42
Tasmania	6	2	8	715	122	10	9
Australian Capital Terri- tory	1	..	1	97	10	1	1
Australia	326	131	457	42,080	4,866	549	253

(a) At 30 June 1965.

The production of honey and bees-wax fluctuates considerably and is determined mainly by the flow of nectar from flora, particularly the eucalypts, which varies greatly from year to year.

HONEY AND BEES-WAX PRODUCTION: STATES AND A.C.T.
1936-37 TO 1964-65
('000 lb.)

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	A.C.T.	Aust.
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HONEY

Average for three years ended—								
1938-39	3,005	3,107	700	2,874	1,299	200	3	11,188
1948-49	14,934	8,232	2,185	8,292	2,831	206	34	36,714
1958-59	12,853	7,239	2,071	5,924	6,548	398	44	35,077
Year—								
1960-61	15,286	8,390	1,848	4,442	5,311	441	83	35,801
1961-62	15,326	10,314	1,281	8,405	7,982	279	64	43,651
1962-63	14,087	4,818	2,941	4,147	6,099	547	40	32,679
1963-64	15,135	9,460	2,053	9,722	8,510	632	135	45,647
1964-65	13,701	9,180	3,794	6,527	8,066	715	97	42,080

BEES-WAX

Average for three years ended—								
1938-39	49	39	11	38	23	2	..	162
1948-49	174	86	36	110	34	3	..	443
1958-59	163	81	31	94	81	5	..	455
Year—								
1960-61	197	105	32	59	71	5	1	470
1961-62	208	135	22	123	94	4	1	587
1962-63	177	64	44	56	79	6	..	426
1963-64	194	110	32	134	103	6	2	581
1964-65	185	105	52	90	106	10	1	549

Honey Levy

The *Honey Levy Act* 1962 imposed a levy on honey sold for domestic consumption* in Australia at the initial operative rate of one halfpenny a pound which was reduced to four-tenths of a cent from 14 February 1966. The Act provides for a maximum rate of one penny (one cent) a pound. The proceeds of this levy may be expended on the regulation of Australian exports of honey and on associated promotional and research activities. In 1962-63, 1963-64 and 1964-65 collections amounted to \$7,000, \$81,000 and \$104,000 respectively.

Overseas trade in bee products

The principal importers of Australian honey in 1964-65 were the United Kingdom (58 per cent of total exports), the Federal Republic of Germany (18 per cent), and Japan (12 per cent).

Bees-wax was exported mainly to the United Kingdom in 1964-65.

EXPORTS OF HONEY AND BEES-WAX: AUSTRALIA, 1962-63 TO 1964-65

		Quantity			Value (\$A'000 f.o.b.)		
		1962-63	1963-64	1964-65	1962-63	1963-64	1964-65
Honey . . . '000 lb.		26,759	18,859	13,710	1,802	2,764	1,431
Bees-wax . . . lb.		322,922	161,347	257,828	142	71	111

Value of dairy, poultry and bee production and indexes of price and quantum of production

Value of dairy, poultry and bee production, 1960-61 to 1964-65

The following table shows the gross value of dairy, poultry and bee products recorded at the principal markets in Australia.

**GROSS VALUE OF DAIRY, POULTRY AND BEE PRODUCTION: AUSTRALIA
1960-61 TO 1964-65
(\$'000)**

—	1960-61	1961-62	1962-63	1963-64	1964-65
DAIRYING					
Whole milk used for—					
Butter(a)	129,202	135,824	147,076	152,750	157,989
Cheese(a)	21,316	22,682	25,116	27,456	30,119
Preserved milk products	18,752	19,282	19,088	21,132	23,806
Other purposes	128,196	131,946	132,010	138,522	145,310
Subsidy paid on whole milk for—					
Butter	24,550	24,494	24,500	24,500	24,500
Cheese	2,450	2,506	2,500	2,500	2,500
<i>Total, whole milk (including subsidy)</i>	<i>324,466</i>	<i>336,734</i>	<i>350,290</i>	<i>366,860</i>	<i>384,224</i>
Pigs slaughtered	61,318	53,906	62,606	65,998	75,408
Dairy cattle slaughtered	23,728	21,832	26,482	30,664	45,624
Total, dairying	409,512	412,472	439,378	463,522	505,256
POULTRY					
Total, poultry	130,188	121,722	123,630	138,182	137,425
BEE-FARMING					
Honey	3,544	3,754	3,296	5,778	4,866
Bees-wax	222	260	184	250	253
Total, bee-farming	3,766	4,014	3,480	6,028	5,119

(a) Excludes Commonwealth subsidy which is shown separately.

Values of dairy, poultry and bee-farming production for 1964-65 and earlier years are shown in the following tables. Further information on values, including definitions of the terms used, is given in the chapter Miscellaneous.

**GROSS, LOCAL AND NET VALUE OF DAIRY, POULTRY AND BEE PRODUCTION
STATES AND TERRITORIES, 1964-65**
(\$'000)

State or Territory	Gross production valued at principal markets	Marketing costs	Local value of production	Value of materials used in process of production	Net value of production(a)
New South Wales	210,524	31,833	178,691	(b) 43,456	135,235
Victoria	242,764	13,102	229,662	68,291	161,371
Queensland	86,127	5,907	80,220	24,670	55,550
South Australia	46,459	1,917	44,542	17,462	27,080
Western Australia . . .	30,884	2,247	28,637	13,928	14,709
Tasmania	29,575	1,573	28,002	7,242	20,760
Northern Territory . . .	335	2	333	n.a.	333
Australian Capital Territory	1,132	113	1,019	286	733
Australia	647,800	56,694	591,106	175,335	415,771

(a) No deduction has been made for depreciation and maintenance.
for costs of power, power kerosene, petrol and other oils.

(b) No allowance has been made

**NET VALUE OF DAIRY, POULTRY AND BEE PRODUCTION(a)
STATES AND TERRITORIES, 1960-61 TO 1964-65**

Year	N.S.W. (b)	Vic.	Qld	S.A.	W.A.	Tas.	Aust. (c)
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NET VALUE (\$'000)

1960-61	127,866	131,224	44,886	19,972	10,150	14,428	349,174
1961-62	117,804	112,752	47,126	22,320	10,444	14,708	325,964
1962-63	124,912	135,426	52,932	21,498	11,332	16,334	363,184
1963-64	131,838	152,640	57,018	23,604	12,714	18,116	396,870
1964-65	135,235	161,371	55,550	27,080	14,709	20,760	415,771

NET VALUE PER HEAD OF POPULATION(\$)

1960-61	33.0	45.4	29.9	20.9	13.9	41.2	33.6
1961-62	29.8	38.1	30.9	22.8	14.0	41.2	30.7
1962-63	31.1	44.8	34.1	21.5	14.8	45.1	33.6
1963-64	32.3	49.4	36.2	23.1	16.3	49.5	36.0
1964-65	32.5	50.9	34.8	26.0	18.4	56.4	37.0

(a) No deduction has been made for depreciation and maintenance. (b) No deduction has been made for costs of power, power kerosene, petrol and other oils. (c) Includes Northern Territory and Australian Capital Territory.

Indexes of quantum and price of dairy, poultry and bee production

For details of the methods of calculating these indexes and of the weights used see the chapter Miscellaneous.

INDEXES OF QUANTUM^(a) AND PRICE OF DAIRY, POULTRY AND BEE PRODUCTION: AUSTRALIA, 1960-61 TO 1964-65

(Base: Average 3 years ended June, 1939 = 100)

	1960-61	1961-62	1962-63	1963-64	1964-65
Quantum ^(a) of production—					
Milk	116	125	129	131	132
Other products	127	135	130	133	143
<i>Total, dairy, poultry and bee</i>	<i>120</i>	<i>128</i>	<i>129</i>	<i>131</i>	<i>136</i>
Per head of population	79	83	82	82	83
Price—					
Milk	384	373	380	382	403
Other products	446	371	410	452	472
<i>Total, dairy, poultry and bee</i>	<i>402</i>	<i>373</i>	<i>388</i>	<i>402</i>	<i>423</i>

(a) Indexes of value at constant prices, i.e. quantities revalued at average unit values of base years 1936-37 to 1938-39.

CHAPTER 24

FORESTRY

For further details on subjects dealt with in this chapter *see* the annual bulletins *Non-Rural Primary Industries and Value of Production*, and *Manufacturing Industry* (for sawmills, etc. operations).

Source of statistics

Statistics relating to forestry are, in general, provided by the various authorities concerned with forestry administration. Particulars of forest reservations contained in this chapter have been collected by the Statisticians of the various States, mainly from information provided by the State forestry authorities. Other information on forested areas has been provided by the Commonwealth Forestry and Timber Bureau, which has also supplied certain other data. Statistics of timber and by-products have been compiled from the annual factory collections undertaken by the Statisticians in the several States. Figures of production of gums, resins and tanning barks have been provided by the State forestry authorities. Data of imports and exports of forest products and timber and timber products have been compiled in the Commonwealth Bureau of Census and Statistics as part of the statistics of overseas trade. The figures shown relate, in general, to years ended 30 June.

Forestry in Australia

Objects of forestry

The main object of forestry authorities is to manage the forests of the country in a manner that will provide the maximum benefits, both direct and indirect. Direct benefits include the provision of essential commercial commodities such as structural timber, pulpwood, plywood, veneers, firewood, bark products, tars, oil, and resins. Indirect benefits include protection of soil and stock from wind and exposure, regulation of stream flow, provision of recreational facilities, and aesthetic effects. Forestry also aims at improving existing forests and woodlands by properly controlled exploitation, by protection from such destructive agencies as fire and insect attack, and by inducing regeneration where it is desirable. The provision of a partial tree cover on denuded lands where this cover is necessary for protective purposes and a complete cover when the land is better under forest than under any other land use are further aims of forestry.

General account of forests and timbers

The area of land in Australia suitable for the production of commercial timber as a primary crop is very small in comparison with the size of the continent. Broadleaved forests (hardwoods) cover 97 per cent of the total forested area, and approximately 94 per cent of the broadleaved forests area is occupied by eucalypts.

Eucalypts. The genus *Eucalyptus* is remarkable in that it includes over 600 species, ranging in size from the mighty forest giants, mountain ash (*E. regnans*) of Victoria and Tasmania, and karri (*E. diversicolor*) of Western Australia, down to the small mallee species which inhabit vast areas of the inland. The habitats range from the dry inland areas to the high mountain areas in the Australian Alps, from areas with the annual rainfall as low as 10 inches to those where it is 150 inches. Of the 600 species, only about 100 are used for sawmilling, and not more than 40 of these are exploited extensively.

The better class of eucalypt forest is concentrated mainly in the higher rainfall areas such as the east coast, the highlands of southern New South Wales, Victoria and Tasmania, and the south-western corner of Western Australia. The more important species include blackbutt (*E. pilularis*), tallowwood (*E. microcorys*), flooded gum (*E. grandis*), and red mahogany (*E. resinifera*) of New South Wales and Queensland, alpine ash (*E. delegatensis*) of New South Wales, Victoria and Tasmania, mountain ash (*E. regnans*), messmate (*E. obliqua*) and blue gum (*E. bicostata*) of Victoria and Tasmania, and karri (*E. diversicolor*) of Western Australia. For height and grandeur, mountain ash and karri are unequalled among the broadleaved trees of the world and are excelled only by a few North American coniferous (softwood) species.

In the coastal regions with lower rainfall the eucalypt forests contain many durable species such as the ironbarks, grey gums and bloodwoods of the east coast, and jarrah (*E. marginata*) and tuart (*E. gomphocephala*) of Western Australia. The spotted gum (*E. maculata*) occurring in New South Wales and Queensland is another example.

Along most of the inland streams and adjacent flood-plains there are riverain forests consisting mainly of river red gum (*E. camaldulensis*), a very durable broadleaved tree which has supplied large quantities of sawn timber, railway sleepers and fence posts.

Eucalypts also occur in open forest and savannah woodland formations in areas receiving a reliable rainfall of about 10 to 20 inches per annum, as on the goldfields of Western Australia where salmon gum (*E. salmonophloia*), brown mallet (*E. astringens*) and wandoo (*E. wandoo*) occur. These forests are of considerable value for firewood, as mining timbers and for fencing. Minor forest products such as sandalwood, tan bark, essential oils, etc. also come from isolated areas in this type of country, and in the more arid areas.

In 1964-65 the volume of eucalypt timber sawn was 1,001 million super. feet.

Other broadleaved timbers (hardwoods). Broadleaved genera other than *Eucalyptus* cover a comparatively small portion of the forested land in Australia (some 6 per cent), but these areas provide a great variety of timbers suitable for a multitude of uses. There are two basic types of forest containing supplies of broadleaved timbers other than eucalypts, namely, the tropical and sub-tropical rainforests of coastal New South Wales and Queensland and the temperate rainforests of southern Victoria and Tasmania, both of which yield species known collectively as rainforest or brushwood species. The total volume of brushwood species produced in 1964-65 was estimated at 78 million super. feet, i.e. less than 7 per cent of the total broadleaved timber cut in Australia.

The tropical and sub-tropical rainforest along the eastern coast of Australia contains a large number of different species. Tropical rainforest occurs in northern Queensland in the vicinity of Cairns and on the Atherton Tableland, providing such well-known cabinet woods as Queensland maple (*Flindersia brayleyana*), Queensland walnut (*Endiandra palmerstonii*) and the silky oaks. The sub-tropical rainforest found in southern Queensland and Northern New South Wales yields the tulip oak, crab apple (*Shizomeria ovata*) and white beech (*Gmelina leichhardtii*). Coachwood (*Ceratopetalum apetalum*) and sassafras (*Doryphora sassafras*) occur in regions to the south near Dorrigo and have yielded valuable timber for many years.

Turpentine (*Syncarpia glomulifera*), an excellent harbour pile timber resistant to marine borer attack, and brush box (*Tristania conferta*), a superior structural and decking timber, are found in association with some eucalypts in the wetter rainfall areas on the north coast of New South Wales and in southern Queensland.

Temperate rainforest which is to be seen in southern parts of Victoria and western Tasmania consists of myrtle beech (*Nethofagus cunninghamii*), but produces also southern sassafras (*Atherosperma moschata*) and blackwood (*Acacia melanoxylon*).

Conifers (softwoods). One of the most important species of native conifers is white cypress pine (*Callitris hugelii*). The main cypress pine forests of commercial value occur in New South Wales and southern Queensland west of the Great Dividing Range. The trees are comparatively small, but the timber has particular value owing to its durability and resistance to termites. It is suitable for use as scantlings, flooring, linings, weatherboards, poles, and posts. As much of the area originally covered by cypress pine has been cleared for wheat farming and grazing, the production from the remaining State forests is now strictly regulated to ensure a continuous supply. The volume of cypress pine cut in 1964-65 was approximately 74.3 million super. feet.

Another important native conifer is hoop pine (*Araucaria cunninghamii*), which occurs naturally in the sub-tropical rainforest of southern Queensland and northern New South Wales associated with tulip oak, crab apple, white beech, coachwood, and sassafras. The greater part of the original hoop pine forests has been exploited, but considerable areas have been replanted to this species in Queensland and, to a lesser extent, in New South Wales.

Other native conifers which have played a useful but minor part in the Australian timber industry include bunya and kauri pines (*Araucaria bidwillii* and *Agathis palmerstonii*) of Queensland and celery top, Huon and King William pines (*Phyllocladus asplenifolius*, *Dacrydium franklinii* and *Athrotaxis selaginoides*) of Tasmania. Kauri pine is found in the tropical rainforest of northern Queensland in association with non-eucalypt broadleaved trees, while bunya pine occurs in the sub-tropical rainforests. In the temperate rainforests of Tasmania celery-top, Huon and King William pines are found in association with myrtle beech, southern sassafras and blackwood.

Extent of forested areas

Estimates prepared for the Eighth British Commonwealth Forestry Conference held in Kenya in 1962 show the total area of forest in Australia as 512.2 million acres, or about 27 per cent of

the total land area of the continent. In making these estimates the Food and Agriculture Organization definition of 'forest' (published in *World Forest Inventory*, 1958, page 123) was used. This definition includes areas of sparse or stunted tree growth, and in the case of Australia some four-fifths of the total forest area falls into this category.

CLASSIFICATION OF FOREST AREA(a): AUSTRALIA

(Source: Forestry and Timber Bureau)

('000 acres)

Type of forest	Area
LANDS	
Accessible forests—	
Productive forests in use—	
Coniferous (softwood)	492
Non-coniferous (broadleaved)	24,352
Mixed woods	5,636
Open areas	245
Total, productive forests in use	30,725
Productive forests not in use	(b) 31,961
Unproductive accessible forests	(c) 257,687
Total, accessible forests	(d) 320,373
Inaccessible forests	191,795
Total, forested area	512,168

OWNERSHIP OF ACCESSIBLE FORESTS

Publicly-owned forests—	
State forests	23,534
Other forests	150,329
Total, publicly-owned forests	173,863
Privately-owned forests	145,537
Ownership not yet determined	973
Total, accessible forests	320,373

(a) Based on the 1960 classification of forests. (b) Includes approximately 25 million acres capable of producing fuelwood only.
 (c) This area carries only sparse, stunted trees. (d) Includes approximately 258 million acres of land carrying only stunted trees classified as unproductive accessible forests.

Forest reservations

Statements furnished by State and Commonwealth authorities show reservations of forest areas in Australia at 31 March 1965 totalling 37.6 million acres, of which 25.7 million acres

were dedicated State forests and 11.9 million acres were timber and other reserves. The distribution of those areas is shown by States in the following table. Detailed comparisons between States are not possible because of the lack of uniform definitions.

AREA OF FOREST RESERVATIONS: STATES AND TERRITORIES 31 MARCH 1965

(Source: Forestry and Timber Bureau)

('000 acres)

State or Territory	State forests	Timber reserves	Other reserves of forestry value	Total
New South Wales	6,803	1,303	..	8,106
Victoria	5,604	(a)	368	5,972
Queensland	6,203	2,043	1,046	9,291
South Australia	286	..	663	949
Western Australia	4,459	1,852	737	7,049
Tasmania	2,391	138	1,217	3,746
Northern Territory . . . . .	..	9	(b) 2,394	2,403
Australian Capital Territory . . . . .	..	..	(d) 131	131
Australia	25,747	5,344	6,556	37,647

(a) Included in State forests. (b) Comprising scenic reserves (forested), pulpwood concessions and exclusive forest permits on crown land. (c) Includes fauna and flora reserve, Coburg Peninsula (473,600 acres), land within welfare reserves (1,100,000 acres), land covered by pastoral lease (820,000 acres). (d) Forest land not specifically reserved but under forestry control.

A considerable proportion of the permanently reserved areas is in inaccessible mountainous country, and many of the forests contain a mixture of species, only some of which are at present of commercial value. Much of the area consists of inferior forest, and a large proportion of the whole has been seriously degraded by recurrent fires.

Plantations

The indigenous forest of Australia does not contain adequate supplies of coniferous timber, and Australia's requirements have had to be met largely by imports. As a result of the planned policy of the forest services and of several private commercial organizations, the area of conifer plantations, mainly of exotic species, is steadily increasing. It was natural that this aspect of forestry should receive earliest attention in South Australia, as this is the State most poorly endowed with natural forest. South Australia now has a larger area of planted conifers than any other State in Australia, and for some years has been exploiting considerable quantities of timber from these plantations. Production is also increasing in the other States, and the thinnings from their plantations are already supplying a significant volume of timber.

The total production of roundwood from Australia's coniferous plantations is now more than 50 million cubic feet per annum and is expected to increase substantially during the next decade.

A special article prepared by the Forestry and Timber Bureau giving a detailed account of the history and development of coniferous plantations and of the characteristics of individual species is included in Year Book No. 44, page 975.

Broadleaved plantations (mainly *Eucalyptus spp.*) comprise a much smaller area, and the total acreage at 31 March 1965 was 36,000 acres, about two-thirds of which was mallet. Plantations of this species have been established in Western Australia for tan bark production.

AREA OF CONIFEROUS AND BROADLEAVED PLANTATIONS: STATES AND TERRITORIES, 31 MARCH 1965

(Source: Forestry and Timber Bureau)

(Acres)

State or Territory	Coniferous							Broad-leaved
	Government			Private			Total	
	Pinus radiata	Other species	Total	Pinus radiata	Other species	Total		
New South Wales .	86,879	20,848	107,727	(a)12,000	(a)16,000	(a)28,000	135,727	(a) 1,200
Victoria . . .	49,839	9,875	59,714	73,447	1,075	74,522	134,236	6,655
Queensland . .	2,625	107,292	109,917	820	11,600	12,420	122,337	4,906
South Australia .	122,674	11,609	134,283	46,400	..	46,400	180,683	3,484
Western Australia .	16,540	24,779	41,319	1,226	175	1,401	42,720	19,111
Tasmania . . .	19,792	431	20,223	7,677	..	7,677	27,900	937
Australian Capital Territory . . .	24,863	2,108	26,971	..	..	..	26,971	..
Northern Territory . .	..	505	505	..	50	50	555	60
Australia . . .	323,212	177,447	500,659	141,570	28,900	170,470	671,129	36,353

(a) Estimated.

Forest administration and research

Commonwealth Forestry and Timber Bureau. The functions of the Commonwealth Forestry and Timber Bureau are laid down in the Forestry and Timber Bureau Act and include forestry research and education, the study of timber supply, and advice to the Government on forestry matters. The administering department is the Department of National Development.

In 1961 the Commonwealth Government decided to expand its activities in forestry research in Australia. The existing Forestry and Timber Bureau Divisions of Silvicultural Research and Forest Management Research were combined to form the Forest Research Institute as a separate branch of the Bureau. The purpose of the Institute is to provide complete coverage in forestry research, ensuring that all problems of primary importance to the practice and development of forestry in Australia are investigated. In developing a programme with this objective, the Institute takes account of the research activities and potential of the State forest services and other organizations. The research work carried out by the existing sections of the Forest Research Institute covers a wide range of studies, including the following: factors affecting tree growth, tree breeding, introduction of exotic species, forest nutrition, forest botany, forest entomology and pathology, fire protection, watershed management, forest mensuration, forest management and management economics, and aerial inventory. The Forest Research Institute maintains five regional establishments in the Commonwealth, two of which have an outpost in addition to the regional headquarters. These regional stations are run on a co-operative basis with State forest services and private forest companies or other government instrumentalities.

The Forestry and Timber Bureau also maintains a Timber Supply Economics Branch concerned with the compilation and analysis of statistics of production, consumption and trade in timber and other forest products. This Branch also carries out studies in forest economics and research into logging methods and machines. Advice on timber supply matters is currently made available to government departments and private enterprise. Research is also undertaken on matters associated with the marketing of timber products.

Commonwealth Scientific and Industrial Research Organization, Division of Forest Products. The Division of Forest Products was formed in 1928 to carry out investigations into Australian forest products, assist in the effective use of such products, reduce waste, reduce losses from decay and insect attack, and conduct research into the fundamental chemical, physical and mechanical properties of Australian timbers.

The research work of the Division is carried out by eight separate sections: wood and fibre structure, wood chemistry, timber physics, timber mechanics, timber preservation, timber seasoning, plywood and glueing, and timber utilization. In addition, the Division provides assistance to individuals and local industry, administers courses of instruction on timber properties and usage, and maintains co-operative projects with several overseas authorities operating in the same field.

Forestry in the Territories. Forestry activities in the Territory of Papua and New Guinea are controlled by the Administration through its Department of Forests. The management of forests in the Australian Capital Territory is the responsibility of the Forestry Section of the Department of the Interior.

The Forestry and Timber Bureau advises the Administrations of the Australian external Territories on the management of the forests in those Territories, while the Northern Regional Station of the Forest Research Institute advises the Northern Territory Administration on forestry matters affecting the Northern Territory.

Forestry activities of the States. Forestry on State-owned lands in the various States is the responsibility of the respective State Governments, but they do not exercise any control over forestry activities on private property. The powers and functions of State forest authorities are laid down under forest Acts and Regulations. In each State there is a department or commission to control and manage State forests, etc. Its functions include the introduction of proper measures for the control and management of forest land; the protection of forest land; the conversion, marketing and economic utilization of forest products; the securing of an adequate and permanent reservation of State forests; the establishment and maintenance of coniferous forests to remedy the existing deficiency of conifers in Australia. All State forest services are actively engaged on research programmes. Annual reports are issued by each State forest authority.

In addition to developing permanent forest reserves in each State, foresters are surveying all forested Crown lands with a view to obtaining dedications of new State forests to add to the permanent forest estate or to release for other uses areas unsuitable for forestry. State forest authorities also usually control all timber on unoccupied Crown lands as well as over 10 million acres of timber reserves, national parks, etc.

Private forestry. Privately owned lands contribute considerably to the total production from Australian forests. The most important areas of managed native forest in private ownership are the forests owned by pulp and paper companies.

The area of privately owned coniferous plantations is rapidly increasing, and here again the pulp and paper companies are very active. In step with the increase in afforestation programmes the number of professional foresters employed in private forestry enterprise is increasing, while several are engaged on research.

An estimate of the area of coniferous plantations established by private companies and individuals is included in the table on page 984.

Forestry education

The functions of the Australian Forestry School at Canberra, previously a division of the Forestry and Timber Bureau, were taken over by the Australian National University at the beginning of the 1965 academic year. The School has been absorbed into the University School of General Studies as the Department of Forestry. This department provides a full four-year training leading to the degree of B.Sc. in forestry. The University of Melbourne also maintains a School of Forestry which gives training leading to a B.Sc. degree in forestry. The universities in all States provide facilities for post-graduate studies in forestry leading to higher degrees.

The Victorian Forests Commission maintains a Forestry School at Creswick where recruits are trained, mainly for employment in the Commission.

The Australian Forestry Council

Following extensive discussions the Commonwealth Government and the Governments of the six Australian States agreed in 1964 to establish an Australian Forestry Council, comprising the Ministers responsible for forestry in the seven Governments and the Commonwealth Minister for Territories.

The Council is intended to provide the means for the mutual exchange between the State and Commonwealth Governments of information and views on forestry. It will co-ordinate research into problems affecting the establishment, development, management, and fire protection of all forests, and the utilization of forest products. It will assist in co-ordinating the work of State and Commonwealth Governments and also private enterprise in the development of Australian forestry.

The Council is supported by a Standing Committee, consisting of the Director-General of the Forestry and Timber Bureau, the heads of each of the six State Forest Services, the Chief of the Division of Forest Products, C.S.I.R.O., and the Secretary of the Department of Territories.

Fire protection

The provision of adequate fire protection is one of the main problems facing forest and rural authorities. The commercial forest area is estimated at 63 million acres, and of this area the forest services maintain a high degree of protection over a relatively accessible area of about 23 million acres, about 17 million acres in the more inaccessible area receive a lesser degree of protection, and about 8 million acres are at present not protected. The remaining area of 15 million acres is mainly privately owned or leased, and under some degree of fire protection from the rural volunteer fire-fighting organizations or Government-financed fire protection associations.

Very intensive fire protection is afforded the coniferous plantation area of Australia. The area burnt in 1963-64 was 273 acres or 0.06 per cent of the area for which statistics are available. During the severe 1964-65 season 3,130 acres of coniferous plantations were burnt. This represents 0.56 per cent of the area of 556,000 acres for which statistics are available. This is the largest area of coniferous plantations burnt since 1952.

Protection of private property outside urban areas is undertaken by volunteer bush fire brigade organizations which are co-ordinated in each State by a committee or board carrying out functions of an advisory or educational nature and fostering the growth and organization of the bush fire brigade movement. Throughout the main agricultural and forest areas of Australia there are over 5,000 registered volunteer bush fire brigades with a membership approaching 250,000. Although forest and rural fire organizations are entirely separate entities, a high degree of co-operation and liaison is maintained.

In addition to the forest service and rural organizations, various private and semi-governmental bodies in each State maintain fire protection organizations, which are generally concerned with the protection of private forestry operations and hydro-electric and water catchment areas.

Over the five-year period 1961 to 1965 the annual cost of protecting from fire the 40 million acres of forest land for which State forest services, semi-governmental bodies and private companies provide protection is estimated at \$4,800,000, or about twelve cents an acre. The cost of fire protection during the severe 1964-65 fire season was \$5,500,000. The cost of rural fire control as a whole cannot be estimated with any degree of accuracy, because by far the greatest contribution comes from the personal efforts of volunteer brigade members.

The Australian fire season is very variable, especially in the eastern and southern States. On the average, damaging fires can occur over a period of four months in all climatic zones. Occasionally this occurrence can extend one month either side of the main fire period. Individual fire seasons are generally of much shorter duration than four months, and the severity of a season is judged more on the number of 'blow-up' days than on its length. On the average, four years in ten are classified as of average severity and two years in ten as severe, the remaining four years being of below-average severity. During severe seasons in the past as much as 5 to 15 per cent of the forest area has been burnt. However, with improving fire control services, it can be expected that the area burnt in severe fire seasons will in future be significantly reduced. The number of forest fires and the forest area burnt during recent years is shown in the following table.

NUMBER OF FIRES AND FOREST AREAS BURNT: AUSTRALIA 1960-61 TO 1964-65

(Source: Forestry and Timber Bureau)

Year	Number of fires	Forest areas burnt	Burnt areas as a proportion of area receiving protection(a)
	No.	'000 acres	Per cent
1960-61 . . .	2,667	1,294	3.5
1961-62 . . .	1,761	297	0.8
1962-63 . . .	1,299	275	0.7
1963-64 . . .	1,494	549	1.5
1964-65 . . .	2,307	1,626	4.1

(a) For this table the area receiving protection has been taken as the 40 million acres for which State forest services provide protection.

Intensive research work is being undertaken on fire problems, and several government groups are working on such projects as the study of fire behaviour and associated fuel and meteorological conditions, the use of chemical aids in fire suppression, the development of protective clothing and devices to aid fire-fighters, and the development of more efficient fire-fighting equipment, including aerial methods of attacking fire and infra-red scanning devices.

Since fire prevention is one of the most important aspects of the problem, intensive campaigns are being conducted to reduce the incidence of man-caused fires. A study of fire causes in recent years reveals that human agencies account for about 90 per cent of all fires, and of this figure at least 80 per cent are preventable. It is estimated that 'burning-off' (much of which is started illegally) accounts for 30 per cent of all fires. Lightning accounts for a little over 10 per cent of all fires in Australia, although the incidence of fires caused by lightning is much higher in certain

areas, especially the Southern Highlands regions in New South Wales and Victoria. Although lightning is a relatively small numerical cause of fire, the percentage area burnt from this cause is estimated at about 20 per cent. This higher figure is due to the occurrence of multiple fire outbreaks which cause fire fighting difficulties and to the inaccessibility of the areas in which such fires generally occur.

An increasing number of fires are starting from roadsides, and smoking materials account for a high proportion of these fires. The fire-proofing of roadsides by chemical and mechanical means should reduce this incidence, which has accounted for over 25 per cent of all fires in some regions.

The damage resulting from bushfires in Australia is difficult to estimate. Eucalypts, which comprise the main forest species, are seldom killed by fire, and damage estimates frequently involve the complicated question of loss of increment and degradation of timber quality. It may be conservatively estimated that damage to forest values lies between \$2 and \$4 per acre burnt per year and that over the last ten years the average value of forest fire damage is of the order of \$4 million a year. In very severe fire seasons such as 1925-26, 1938-39 and 1951-52, which affected large areas of the continent, fire loss may have been as high as \$200 million. In 1964-65 fire damage may have reached a value of \$10 million.

Commonwealth loans to expand softwood plantations

The Australian Forestry Council recommended that Australia should increase its rate of softwood planting from the present 40,000 acres a year to 75,000 acres for the next thirty-five years. This proposal envisaged annual plantings of 65,000 acres by the various governments for the next thirty-five years and an average of at least 10,000 acres a year by private forest owners. In February 1966 the Commonwealth Government endorsed these recommendations by offering the States about \$20 million in long term loans over the following five years to help lift the planting rate in State government softwood plantations. The loans would be free of interest and repayment of capital for the first ten years because of the long term nature of forestry and the long period between planting and income-earning production. The loans would cover the additional cost to the States in carrying out their parts of the Australian Forestry Council's recommendation over the next five years and it was expected that the planting rate of softwood plantations in Australia would be raised to 75,000 acres per year. If this rate of planting could be maintained for the next thirty-five years it was estimated that Australia would become substantially self-sufficient in production of softwood timber by the year 2,000.

Employment in forestry

Persons engaged in forestry activities

In the following table, which shows particulars collected in the Population Censuses of Australia of 30 June 1947, 1954 and 1961, the numbers of persons whose industry statements were classified to 'forestry (excluding sawmilling)' are shown, together with the numbers engaged in all primary industries and the total work force. An adjustment was made to the 1947 and 1954 industry data by distributing over the range of recorded industry the number of persons whose industry was not stated. No such adjustment was made to the 1961 figures.

PERSONS ENGAGED IN FORESTRY: AUSTRALIA, CENSUSES, 1947, 1954 AND 1961

	Census, 30 June—		
	1947	1954	1961
Persons engaged in—			
Forestry (excluding sawmilling)	24,793	15,468	13,847
All primary industries	563,607	560,100	513,286
Total work force	3,196,431	3,702,022	4,225,096
Persons employed in forestry (excluding sawmilling)			
as a proportion of—			
All primary industries %	4.4	2.8	2.7
Total work force %	0.8	0.4	0.3

Employment by Forestry Departments

In the table following details are shown of the number of persons employed by State forestry departments and by the Forestry and Timber Bureau in the Australian Capital Territory and the Northern Territory at 30 June 1965.

**PERSONS EMPLOYED BY FORESTRY DEPARTMENTS
STATES AND TERRITORIES, 30 JUNE 1965**

Occupational group	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Professional staff	270	229	126	74	61	41	6	10	817
Non-professional field staff	241	273	96	7	186	96	14	1	914
Clerical staff	298	258	199	103	59	96	7	6	1,026
Extraction of timber	1,359	47	118	..	40	20	10	..	6,315
Milling of timber		19	..	646	37	..	..	..
Labour (forest workers, etc.)		825	1,781	244	509	435	160	65	
Total	2,168	1,651	2,320	1,074	892	688	197	82	9,072

Employment in milling operations

Details of the average number of persons employed, including working proprietors, in sawmills during the year 1964-65 are shown in the next table. Further details regarding the operations of sawmills in 1963-64 are shown in the chapter Manufacturing Industry.

**NUMBER OF SAWMILLS AND NUMBER OF PERSONS EMPLOYED
STATES AND TERRITORIES, 1964-65**

—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.(a)
Number of sawmills	741	441	520	89	192	308	2,299
Average number of persons employed during year—	7,967	5,652	5,404	2,226	3,341	2,793	27,454
Males	375	246	294	203	90	57	1,271
Females							
Persons	8,342	5,898	5,698	2,429	3,431	2,850	28,725

(a) Includes Northern Territory and Australian Capital Territory.

Forest production

Forest products

The following tables show details of production of forest products.

FOREST PRODUCTION(a): STATES AND TERRITORIES, 1964-65

Product	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Logs for sawing, peeling, slicing, or pulping—									
Forest broadleaved '000	57,775	68,159	21,633	566	49,755	53,810	25	30	251,753
Brushwoods and scrubwoods	4,815	..	8,719	13	..	..	2	..	13,349
Coniferous—									
Indigenous forest 'pines'—									
Cypress	7,821	..	5,843	39	..	..	92	..	13,795
Other	442	2	3,086	1	235	..	..	..	3,766
Plantation grown 'pines'	7,676	12,398	4,310	26,795	2,095	1,746	..	1,236	56,255
Total logs	78,529	80,559	43,590	27,414	51,849	55,791	119	1,266	339,117
Value of logs \$'000	23,002	22,391	14,645	5,795	7,720	12,431	227	282	86,494
Hewn and other timber (not included above)—									
Firewood(b) (weight) '000 tons	257	833	111	519	536	431	2	2	2,690
Other(c) (value) \$'000	8,067	2,587	2,261	..	(d)1,343	949	34	15	15,256
Value of hewn and other timber	9,358	11,089	2,814	2,989	(d)3,786	2,883	49	32	32,998
Other forest products(e)									
(total value)	179	150	318	62	(f) 19	12	..	..	729
Total value of forest products	32,539	33,629	17,777	8,846	g 12,093	15,327	276	314	120,801

(a) Excludes some production from private land thought to be relatively small, details of which are not available.
 (b) Includes mill waste used as firewood. (c) Includes sleepers, transoms, girders, bridge timbers, mining timber, poles, piles, etc. (d) Excludes timber used for tannin extract, details of which are not available for publication.
 (e) Includes charcoal (forest production only), tanning bark, essential oils, eucalyptus leaves, crude rutin, etc.
 (f) Excludes value of sandalwood and substitutes, details of which are not available for publication. (g) Includes timber used for tannin extract and sandalwood and substitutes.

FOREST PRODUCTION(a): AUSTRALIA, 1960-61 TO 1964-65

Product		1960-61	1961-62	1962-63	1963-64	1964-65
Logs for sawing, peeling, slicing, or pulping—						
Forest broadleaved	'000 cub. ft.	242,142	223,389	230,401	245,674	251,753
Brushwoods and scrubwoods	"	14,689	11,890	12,657	12,741	13,549
Coniferous—						
Indigenous forest 'pines'—						
Cypress	"	13,483	12,351	12,489	13,070	13,795
Other	"	4,726	3,676	3,799	3,950	3,766
Plantation grown 'pines'	"	39,850	42,245	49,569	50,883	56,255
Total logs		314,890	293,551	308,915	326,318	339,117
Value of logs	\$'000	76,950	71,176	74,954	79,576	86,494
Hewn and other timber (not included above)—						
Firewood(b)(weight)	'000 tons	3,090	2,742	2,702	2,720	2,690
Other(c)(value)	\$'000	16,640	15,558	13,604	13,900	15,256
Value of hewn and other timber(d)	"	34,154	31,184	28,944	31,872	32,998
Other forest products(e) (total value)	"	744	842	588	618	739
Total value of forest products (f)	"	112,592	103,686	104,820	112,416	120,801

(a) Excludes some production from private land, thought to be relatively small, details of which are not available. (b) See footnote (b) to previous table. (c) See footnotes (c) and (d) to previous table. (d) Incomplete; see footnote (d) to previous table. (e) See footnotes (e) and (f) to previous table. (f) Includes timber used for tannin extract and sandalwood and substitutes in Western Australia.

Value of production

While statistics of both the gross value (at principal markets) and local value (at place of production) of the forestry industry are available, particulars of the value of materials used in the process of production are not available for all States. For this reason values cannot be stated on a net basis, as has been done with most other industries. A more detailed reference to the value of production of forestry and other industries in Australia, as well as a brief explanation of the terms used, will be found in the chapter Miscellaneous.

GROSS AND LOCAL VALUE OF FORESTRY PRODUCTION
STATES AND TERRITORIES, 1964-65
(\$'000)

State or Territory	Gross value(a)	Marketing costs	Local value(b)
New South Wales	32,539	953	31,586
Victoria	33,629	1,553	32,076
Queensland	17,777	4,295	13,482
South Australia	8,846	45	8,801
Western Australia	12,093	770	11,323
Tasmania	15,327	2,057	13,270
Northern Territory	276	n.a.	276
Australian Capital Territory	314	n.a.	314
Australia	120,801	9,673	111,128

(a) Gross production valued at principal markets.
valued at place of production.

(b) Gross production

The following table shows, for each State, the local value of forestry production and the local value per head of population for the years 1960-61 to 1964-65.

LOCAL VALUE OF FORESTRY PRODUCTION: STATES, 1960-61 TO 1964-65

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.(a)
LOCAL VALUE (\$'000)							
1960-61 . . .	30,600	27,880	14,298	7,458	10,334	11,470	102,404
1961-62 . . .	28,862	26,260	11,790	7,466	10,382	10,180	95,236
1962-63 . . .	27,976	26,200	11,976	8,116	10,162	11,314	96,102
1963-64 . . .	29,618	28,920	12,980	8,168	10,734	11,638	102,624
1964-65 . . .	31,586	32,076	13,482	8,801	11,323	13,270	111,128

LOCAL VALUE PER HEAD OF POPULATION (\$)

1960-61 . . .	7.8	9.6	9.6	7.8	14.2	32.8	9.8
1961-62 . . .	7.4	8.8	7.8	7.6	14.0	28.6	9.0
1962-63 . . .	7.0	8.6	7.8	8.2	13.4	31.2	8.9
1963-64 . . .	7.3	9.4	8.3	8.0	13.7	31.8	9.3
1964-65 . . .	7.6	10.1	8.5	8.4	14.2	36.1	9.9

(a) Includes Northern Territory and Australian Capital Territory.

Timber and timber products

Mill production of timber

Particulars of logs treated and the production of sawn, peeled and sliced timber by sawmills and other woodworking establishments are shown in the following table. These figures have been compiled from the annual factory collections in each State, which cover virtually all sawmills. The only omissions are some small portable mills operated by itinerants, e.g. sleeper cutters.

OUTPUT OF AUSTRALIAN-GROWN TIMBER: ALL MILLS, STATES, 1964-65 ('000 super. feet)

—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.(a)
Logs treated (true volume)—							
Broadleaved .	694,651	658,400	368,790	10,033	596,731	439,240	2,767,843
Coniferous .	163,786	89,121	160,050	277,713	25,122	12,899	728,691
<i>Total, logs treated .</i>	<i>858,437</i>	<i>747,521</i>	<i>528,840</i>	<i>287,746</i>	<i>621,853</i>	<i>452,139</i>	<i>3,496,535</i>
Sawn, peeled or sliced timber produced from logs above—							
Broadleaved .	359,291	293,319	173,928	5,430	198,941	180,081	1,210,990
Coniferous .	73,825	35,982	72,386	134,015	8,282	4,831	329,322
<i>Total, timber produced .</i>	<i>433,116</i>	<i>329,301</i>	<i>246,314</i>	<i>139,445</i>	<i>207,223</i>	<i>184,913</i>	<i>1,540,312</i>

(a) Excludes Australian Capital Territory and Northern Territory.

OUTPUT OF AUSTRALIAN-GROWN TIMBER, ALL MILLS: AUSTRALIA(a)
1960-61 TO 1964-65
('000 super. feet)

	1960-61	1961-62	1962-63	1963-64	1964-65
Logs treated (true volume)—					
Broadleaved	2,672,080	2,524,528	2,552,552	2,681,565	2,767,843
Coniferous	646,801	640,833	778,674	704,296	728,691
<i>Total, logs treated</i>	<i>3,318,881</i>	<i>3,165,361</i>	<i>3,331,226</i>	<i>3,385,861</i>	<i>3,496,535</i>
Sawn, peeled or sliced timber produced from logs above—					
Broadleaved	1,152,995	1,063,086	1,088,197	1,157,165	1,210,990
Coniferous	264,838	289,117	322,370	330,862	329,322
<i>Total, timber produced</i>	<i>1,417,833</i>	<i>1,352,202</i>	<i>1,410,567</i>	<i>1,488,027</i>	<i>1,540,312</i>

(a) Excludes Australian Capital Territory and Northern Territory.

In addition to the mill production of timber shown in the preceding tables, a large quantity of hewn and round timber, e.g. sleepers, piles, poles, fencing timber, timber used in mining and fuel, is obtained directly from forest and other areas. Complete information in respect of the volume of this output is not available.

Veneers, plywood, etc.

Cutting of timber for the manufacture of veneers, plywood, etc. has been carried out in most States for a number of years. In recent years this has been considerably extended, since plywood manufacture has allowed the use of some species unsuitable for sawing. Special attention has been paid to ensure that logs suitable for peeling are diverted to ply factories.

PLYWOOD PRODUCED: STATES, 1960-61 TO 1964-65

('000 square feet: $\frac{3}{16}$ -in. basis)

State	1960-61	1961-62	1962-63	1963-64	1964-65
New South Wales	64,930	56,184	56,766	58,880	59,045
Queensland	112,414	98,086	85,746	97,252	94,766
Other States	46,045	48,537	52,751	60,150	63,249
<i>Australia</i>	<i>223,389</i>	<i>202,807</i>	<i>195,263</i>	<i>216,282</i>	<i>217,059</i>

Of the total plywood produced in 1964-65, 137,826,000 square feet ($\frac{3}{16}$ -in. basis) were classed as 'Commercial', 52,379,000 as 'Waterproof', 2,873,000 as 'Case', and 23,981,000 as 'Sliced Fancy'.

During 1964-65, 806.4 million square feet ($\frac{1}{16}$ -in. basis) of veneers were produced by the rotary process for the manufacture of plywood, including 252.6 million square feet ($\frac{1}{16}$ -in. basis) sold or added to stock, the bulk of which would eventually be used in the production of plywood. In addition, 59.9 million square feet of sliced veneers were produced.

Manufactured boards

Hardboard. There were five factories producing hardboard in Australia during 1964-65 (two in New South Wales, and one in each of Victoria, Queensland and Tasmania), and during the three years ended 30 June 1965 the following quantities were produced: 1962-63, 300 million square feet; 1963-64, 358 million square feet and 1964-65, 381 million square feet.

Resin-bonded boards. Production of resin-bonded boards (made from wood chips, wood wool, sawdust, etc.) amounted to 5,761,000 square yards during 1964-65.

Wood pulp and paper

Wood pulp. During 1964-65 five wood pulp mills were operating in four States, and production was 317,435 tons of chemical, mechanical¹ and other pulp. During the previous year production was 286,006 tons.

Detailed information relating to the types and methods of production of wood pulp in the various States was published in Year Book No. 50, 1964, page 1110.

Paper and paper board. Paper and paper board are manufactured in all States, but the greater part of the industry is in New South Wales, Victoria and Tasmania. During 1964-65 twenty-five paper mills were operating, twelve in Victoria, four in New South Wales, four in Tasmania, two each in Queensland and South Australia, and one in Western Australia. A wide variety of paper and paper board is produced in Australian mills. The table below gives details of the production of some of the principal items.

PRODUCTION OF PAPER PRODUCTS: AUSTRALIA, 1962-63 TO 1964-65

Type of paper	Quantity (tons)			Value (\$'000)		
	1962-63	1963-64	1964-65	1962-63	1963-64	1964-65
Newsprint . . .	90,245	92,039	93,142	12,868	12,854	12,948
Blotting . . .	558	553	488	166	164	124
Duplicating . . .	6,794	7,008	7,386	2,146	2,370	2,618
Printing and writing .	85,711	94,473	101,222	26,756	29,062	28,948
Wrapping—						
Kraft . . .	118,018	141,006	160,807	28,616	33,134	37,403
Other . . .	9,942	12,127	16,158	3,520	4,294	5,269
Paper felts . . .	1,889	1,917	1,868	400	410	407
Paper boards . . .	240,965	258,374	296,387	37,955	40,966	47,670

Oversea trade in forest products, timber and timber products**Imports**

Quantities and values of forest products, timber and timber products imported into Australia during the years 1962-63 to 1964-65 are shown in the following table.

**IMPORTS OF FOREST PRODUCTS, TIMBER AND TIMBER PRODUCTS
AUSTRALIA, 1962-63 TO 1964-65**

		Quantity			Value (\$A'000 f.o.b.)		
		1962-63	1963-64	1964-65	1962-63	1963-64	1964-65
Logs not sawn—							
Softwoods(a) ..	.. '000 sup. ft.	3,226	2,220	1,117	237	152	81
Hardwoods(b) ..	.. ..	47,312	41,223	53,577	2,713	2,523	3,307
Undressed timber—							
Dunnage ..	.. ..	..	..	..	8	10	20
Softwoods(a), n.e.l.—							
Douglas fir ..	.. '000 sup. ft.	154,457	193,291	170,038	13,518	17,697	15,954
Radiata pine ..	.. ..	24,388	25,086	32,432	1,720	1,763	2,333
Other ..	.. ..	26,465	41,565	39,855	3,084	4,811	4,790
Hardwoods(b), n.e.l.	.. ..	64,300	67,987	101,200	6,838	7,559	12,256
Box shooks, n.e.l. ..	.. ..	561	567	865	79	95	140
Dressed timber ..	.. ..	9,079	6,328	8,055	1,311	966	1,298
Veneers ..	.. '000 sq. ft.	25,063	23,743	40,693	623	620	1,087
Plywood ..	.. ..	26,040	30,398	47,298	1,806	2,326	3,245
Tanning substances	.. cwt.	161,209	151,243	156,328	740	874	965
Sandalwood oil ..	.. lb.	2,516	1,811	1,475	18	10	18

(a) Non-pored woods. (b) Pored woods.



Imports of softwood logs in recent years have come largely from the Solomon Islands and Malaysia, and approximately two-thirds of the imports of hardwood logs have come from Malaysia. Imports of undressed soft wood timber comprise mainly Douglas fir (Oregon pine) from Canada and the United States of America and Radiata pine from New Zealand. Imports of undressed hardwood timber come mainly from Malaysia. Timbers from Scandinavian countries provide most of the dressed timber imports.

Imports of timber products are mainly veneers and plywoods. Papua and New Guinea and Japan provide most of the plywood imports, and the United Kingdom and Papua and New Guinea supply nearly half of Australia's imports of veneers. Tanning substances are the only other forest products imported in significant quantities. The most important of these is wattle bark produced in South Africa.

Exports

Details of exports of Australian forest and timber products in the years 1962-63 to 1964-65 are given in the following table.

EXPORTS OF AUSTRALIAN FOREST PRODUCTS, TIMBER AND TIMBER PRODUCTS(a): AUSTRALIA, 1962-63 TO 1964-65

	Quantity			Value (\$A'000 f.o.b.)		
	1962-63	1963-64	1964-65	1962-63	1963-64	1964-65
Logs not sawn . . . '000 sup. ft.	4,392	4,070	2,994	322	371	323
Undressed timber(b)—						
Sleepers . . . "	22,998	21,578	9,735	2,570	2,263	1,056
Fence posts, girders and pole blocks . . . "	373	650	701	40	80	73
Softwoods(c), n.e.i. . . "	112	117	203	22	22	41
Hardwoods(d), n.e.i. . . "	13,917	13,499	16,490	1,918	1,856	2,320
Dressed timber . . . "	1,419	1,907	1,632	414	536	448
Veneers . . . '000 sq. ft.	1,474	2,453	1,411	66	102	61
Plywood . . . "	751	735	590	190	174	161
Tanning substances . . . cwt.	88,317	101,008	92,498	474	611	597
Charcoal . . . "	6,602	5,793	2,128	62	54	20
Eucalyptus oil . . . '000 lb.	475	304	295	312	230	269
Acaroid resin, grass tree and yacca gum . . . cwt.	10,934	6,583	6,774	40	26	21

(a) Excludes re-exports. (b) Excludes stumps and the like. (c) Non-pored woods. (d) Pored woods.

Of the exports of logs in 1964-65, 92 per cent were consigned to New Zealand; of the sleepers exported, 54 per cent were consigned to South Africa and 28 per cent to New Zealand; while of all undressed timber exported, 39 per cent were consigned to South Africa and 37 per cent to New Zealand. Consignments to the United States of America accounted for 74 per cent of the exports of tanning substances in 1964-65.

CHAPTER 25

FISHERIES

Further information on subjects dealt with in this chapter is contained in the annual printed bulletin *Non-Rural Primary Industries and Value of Production* and in the annual mimeographed statistical bulletin *Fisheries*, particularly as regards types of fish, etc., caught.

Fisheries resources and their commercial exploitation

Fish

It has been calculated that there are approximately 2,000 species of fish in Australia and the waters surrounding it (including freshwater species). Fishing is carried out continually in estuarine, coastal and offshore Australian waters in the east and south from Port Douglas in Queensland to Ceduna in South Australia, and in Western Australia from Esperance to Exmouth Gulf, and sporadically in the Onslow, Broome, Darwin, and Karumba areas in the north. Most fishing is done in waters over the continental shelf, which varies greatly in width around the continent, but tuna is sometimes fished beyond the shelf. As in other countries, fisheries in Australia may be divided into three types: the estuarine fisheries, located in the tidal waters of rivers and coastal lakes; the pelagic fisheries, which exploit species inhabiting the surface layers of the open ocean; and the demersal fisheries, which fish the bottom layers of the sea. The estuarine fisheries produce considerable quantities of the table varieties, such as mullets (*Mugil cephalus* and associated species) and breams (*Acanthopagrus* spp.). In addition to these there is a small freshwater commercial fishery, principally in New South Wales and South Australia, exploiting Murray cod (*Maccullochella macquariensis*) and golden perch (*Plectroplites ambiguus*). The pelagic fisheries produce species exploited during their seasonal migration, such as Australian 'Salmon' (*Arripis trutta*), which is a member of the order Perciformes, or perch-like fishes, tunas (Fam. *Thynnidae*, *Katsuwonidae*, *Sardidae*), barracouta (*Leionura atun*), and mackerels (*Cybius* spp.). These fisheries, with the exception of some tuna, mackerel and reef fisheries, are concentrated in the temperate waters around the southern half of the continent. The offshore demersal fisheries include those pursued on the reefs which may be found virtually right around the continent, and which yield such species as snapper (*Chrysophrys auratus*), the so-called 'cods' (*Epinephelus*, *Choerodon*, *Callydon* spp.) and associated species; those pursued on the trawling grounds, which produce species such as flathead (*Neoplatycephalus*, *Trudis* spp.), morwong (*Nemadactylus* spp.), John Dory (*Zeus faber*), etc.; and the important fishery for edible shark (school shark, *Galeorhinus australis* and gummy shark, *Mustelus antarcticus*) in south-eastern Australia.

Crustaceans

Crustaceans taken in Australia include crayfish, prawns, crabs, and freshwater lobsters. Crayfish (southern, *Jasus lalandei*; western, *Panulirus cygnus*; and eastern, *Jasus verreauxi*) is the most important crustacean exploited in Australia, and various species occur on the reefs of the continental shelf in all States. The commercial fishery, for technological reasons and through lack of knowledge of numbers, has not extended to the tropical species (*P. ornatus*), etc., but is concentrated on species found around the southern half of Australia. Prawns (*Penaeus* and *Metapenaeus* spp.) are taken in the estuarine, coastal and offshore waters of New South Wales and Queensland, and in the Shark Bay and Exmouth Gulf region of Western Australia. Crabs (*Scylla* and *Portunus* spp.) are taken mainly in Queensland and Western Australia, but small quantities are also taken in the other States. Freshwater lobsters (*Eustacus serratus*) are caught in inland streams in New South Wales, and one species, marron (*Cheraps tenuimanus*) forms the basis of an amateur fishery in the south-west of Western Australia.

Molluscs

Edible molluscs produced in Australia include oysters (mainly *Crassostrea commercialis*), scallops, mussels, and some of the cephalopods (squid, octopus, cuttlefish). Naturally-grown oysters are produced in all States except South Australia. In New South Wales and to a lesser extent in Queensland edible oysters are cultured commercially. The scallops (*Pecten meridionalis* and *Equichlamys bifrons*) are taken in Tasmania, the saucer scallop (*Amusium balloti*) is harvested in Queensland, and a fishery exploiting the species *Pecten alba* has recently been developed in Port Phillip Bay. The scallop resources in the Shark Bay area of Western Australia have not been

developed, and are still the subject of scientific investigations. Mussels (*Mytilus planulatus*) are gathered mainly in Victoria. Small quantities of cephalopods, mainly squid (*Loligo spp.*), are produced in many localities. Increased interest in the abalone (*Haliotis spp.*) has resulted in the development of small fisheries off southern New South Wales and Victoria and the east coast of Tasmania. Other edible molluscs taken from time to time include pipis (*Plebidonax deltoides*).

Pearl-shell and trochus-shell

The shell of the Australian species of pearl oyster (*Pinctada maxima*) is taken in the tropical waters of Australia from Exmouth Gulf in Western Australia to Cairns in Queensland for the manufacture of buttons, knife handles, etc. Live pearl-shell is used for pearl culture, the *Pinctada maxima* being capable of producing pearls which are the largest in the world and which command top market prices. Trochus-shell is found mainly on coral reefs off the Queensland coast, although small quantities occur in Western Australia.

Whales

The Australian whaling industry formerly exploited the humpback whales (*Megaptera novaeangliae*) during their winter migrations along the east and west coasts of Australia. However, owing to the total prohibition placed on their capture by the International Whaling Commission in 1963, Australian whaling is now confined to the sperm whale (*Physeter catodon*) which has been taken in the southern waters of Western Australia since 1955.

Marine flora

Seaweeds of possible commercial value occur in the coastal waters of New South Wales, Tasmania, South Australia, and Western Australia. In 1964, at Louisville, Tasmania, a factory began processing seaweed (*Macrocystis pyrifera*) for its alginic content.

History of the development of fisheries industries in Australia

Fishing

At the beginning of this century Australian fisheries were principally estuarine and onshore, and the deeper offshore resources were comparatively unknown. Vessels were generally sail-powered, and catching and preservation methods were primitive.

From 1909 to 1914 a Commonwealth vessel was engaged in research into fisheries resources around Australia. As a result of this exploration otter trawling in the south-eastern waters began in 1915. There have been several years of high production from this fishery, but in each case the peak year was followed by a period of low production. Danish seine trawlers entered this fishery in 1936. In 1958–59 steam otter trawling vessels used in this area were taken out of service. This fishery is at present stabilized at a relatively low level of production.

The tuna fishery began with the establishment in 1937 of a cannery at Narooma in New South Wales to exploit the occurrences, mainly of southern bluefin tuna (*Thunnus thynnus maccoyii*), which had been revealed by aerial surveys in 1936. However, landings were insignificant for over a decade. In 1950 the Commonwealth Government sponsored a Fijian tuna clipper and trained crew to instruct fishermen in the pole-and-live-bait method of catching tuna. Development of the South Australian tuna fishery followed the visit of two American tuna experts in 1954. Recent developments in tuna fishing include the use of gill netting, long-lining and the purse seine technique which was successfully used for the first time in 1965. Techniques for taking species of tuna other than southern bluefin are being investigated.

Crustaceans

The crayfishery, which is pursued off south-eastern Australia and off the west coast of Western Australia, was for many decades on a small scale. It was not until 1944 that the major sector, the western crayfishery, began to develop into what is now Australia's most productive single fishery. Between 1944 and 1947 production from the shallow areas of Houtman Abrolhos was used for canning for the armed forces. From 1948 to 1953 mechanization of the fleet was introduced progressively and deeper waters were worked. The United States market for frozen craytails was established during this period. The period 1954 to 1962 saw the introduction of larger and more powerful vessels, of conservation measures designed to maximize the sustainable yield, and of increased processing facilities. In the southern crayfishery, development has followed similar lines, but on a smaller scale because of the smaller crayfish population.

The prawn fishery was pursued for many decades on a small scale, but it was not until the discovery that prawns spawn in oceanic waters that interest developed in catching them during this phase of their life cycle. The discovery in 1947 of stocks of prawns in Stockton Bight and off Evans Head (both in New South Wales) initiated the development of deep-sea prawning in Australia. Since that time the prawn fishery has expanded to the eastern offshore grounds. Commercial prawn fisheries in Western Australia commenced at Shark Bay in 1962 and at Exmouth Gulf in 1964.

Molluscs

Natural oyster-beds were being harvested soon after settlement first began, but by 1870 rapid depletion of the stocks had resulted in restrictive legislation being passed in New South Wales. By the end of the nineteenth century, however, farms had been established in New South Wales and oyster cultivation was a notable industry. This cultivation has been almost entirely confined to the river estuaries of New South Wales. Very few oysters are exported and importation of oysters is necessary to cope with home demand. During 1964 a commercial scallop fishery was established in Port Phillip Bay and there was a noticeable development in the harvesting of abalone in the waters of New South Wales, Tasmania and Victoria.

Whaling

Whaling has been undertaken from time to time in Australia since the early days of settlement. Humpback whaling was carried out from stations on the west coast of Australia from 1949, and on the east coast from 1952. However, depleted stocks of the species resulted in the closing down by 1962 of the eastern stations, and in 1963, owing to the severe decline in world stocks of humpback whales, the International Whaling Commission, of which Australia is a member, prohibited the capture of the species south of the equator for an indefinite period. Australian whaling is now carried out from Albany only, where the catch is confined to sperm whales.

Pearling

Since the middle of the nineteenth century, when pearling by Europeans first commenced in Australia, the collection of natural pearls has been incidental to the production of mother-of-pearl shell. Although attempts to establish pearl culture in Australia had been partially successful as early as the end of the last century, it was not until 1956 that the modern technique, as developed by the Japanese, was introduced into Australia at Kuri Bay in Western Australia. The joint venture between Australian and Japanese interests proved successful and others entered the industry. There are now fifteen pearl culture farms in Western Australia, the Northern Territory and Queensland. Twelve of the farms are operated as joint ventures by Australian and Japanese interests, while three are wholly Australian enterprises. The technique of pearl culture is still a closely-guarded trade secret.

A map showing Australia's principal ports and the localities of the fishery resources under exploitation appears on plate 56 (facing page 992).

Fisheries administration and research

Government administration

The fisheries within territorial waters (that is, within three miles of the shore) are administered by State departments and Territory administrations. The Fisheries Branch of the Department of Primary Industry develops and administers fisheries in extra-territorial waters and co-ordinates fisheries administration.

The fisheries laws of each State and Territory and of the Commonwealth provide for the licensing of boats used in commercial fishing operations and of commercial fishermen. The provisions are broadly similar in each State, the general requirement being that any person who takes fish for sale, and any boat used in such fishing operations, must be licensed in the State or Territory concerned. Some States extend the licensing requirements to amateur or part-time fishermen. Australian nationals who fish commercially outside the territorial waters of a State or Territory, but within Australian waters as proclaimed under the *Fisheries Act 1952-1959*, are required to take out licences and to register their boats under that Act.

Fish stocks inhabiting Australian waters are a common property resource. With the exception of the Western Australian crayfishery and the Shark Bay prawn fishery, there are no restrictions on recruitment of men and vessels to any fishery. It has, therefore, been necessary for governmental action to be taken in an endeavour to provide rules of operation in certain fisheries which are vulnerable to depletion. The policy basic to the management of these fisheries is the greatest sustainable yield consistent with economic operations. Where a fishery, for economic reasons, is not producing its maximum yield, efforts to discover new methods of utilization of the catch are made.

The *Pearl Fisheries Act 1952-1953* provides for the management of the pearl-shell resources in accordance with Australia's proclamation of sovereign rights over the natural resources of the sea bed and subsoil to the 100 fathom line. It requires that all pearlers, vessels, etc. must be licensed, and prohibits the removal of live shell from Australian waters except with the written permission of the Minister for Primary Industry.

Under the *Whaling Act* 1960 the Commonwealth controls whaling from Australian stations in accordance with the conditions laid down by the International Whaling Commission. This Commission was established by the International Convention for the Regulation of Whaling, 1946, to organize world-wide conservation measures.

Research

The aim of all fisheries research in Australia is to achieve the greatest sustainable yield of fish and to assist in the development of an efficient industry. To this end much of the biological research already undertaken has been directed at formulating recommendations for management measures in various fisheries. Research work is also carried out which is expected to lead to the development of new fisheries, the expansion of under-exploited fisheries, more economical operations, and the use of more efficient equipment.

The organizations in Australia at present engaged in research into fisheries matters are:

- (i) Division of Fisheries and Oceanography, C.S.I.R.O. (fisheries science and oceanography);
- (ii) Division of Food Preservation, C.S.I.R.O. (research into handling, storage, processing, and transportation of fish);
- (iii) the several State fisheries departments (general biological research);
- (iv) Fisheries Branch, Department of Primary Industry (economic and management research, gear technology, extension work to the industry).

Collection and presentation of fisheries statistics

Source and basis of statistics

Statistics presented in this chapter have been collected by a number of authorities. The various State fisheries authorities have supplied, through the Deputy Commonwealth Statisticians in the States, the details of employment, boats, equipment, and production of the general fisheries and the pearl and shell fisheries. The Fisheries Branch of the Department of Primary Industry has supplied particulars of the whaling industry. Statistics of the processing of general fisheries products and of overseas trade in the products of fishing and whaling have been compiled in the Commonwealth Bureau of Census and Statistics.

The statistics refer, in general, to financial years. However, pearl and shell fishing data refer to the season ended in the financial year shown. Whaling statistics are shown by calendar years, and refer to the season in the calendar year. All overseas trade information refers to financial years.

In the preparation of Australian fisheries production statistics the quantities of individual products are generally in terms of the form in which they are taken from the water. For example, the statistics of fish production published in this chapter are in terms of 'estimated live weights' which are calculated from landed weights by using conversion factors for each species in each State. These conversion factors allow for the fact that the quantities of fish reported are frequently in a gutted, headed and gutted, or otherwise reduced condition. Crustaceans are reported on a 'whole weight' basis and molluscs (edible) on a 'gross (in-shell) weight' basis. The figures of pearl-shell and trochus-shell refer to the actual quantities of dry shell for sale and exclude the weight of the fish.

In Australia the basic source of statistical information on commercial fishing operations is the fishermen. In four of the six States monthly returns of catch by species have been obtained from fishermen for a number of years. In the other two States (Queensland and South Australia) there have been no statistical collections from fishermen, and catch statistics have been derived from other sources such as markets and receiving depots. In general it is recognized that catch statistics in Australia have been somewhat incomplete in past years. For example, details of production given in this chapter refer in most cases only to the recorded commercial production. In view of the importance of amateur fishermen in certain types of fishing, details shown cannot be taken as representing the total catch. In addition, it is likely that the figures shown understate to some extent the full commercial catch because no information is available on fish taken for sale by persons not licensed as professional fishermen.

Two weaknesses of fisheries statistical collections in Australia to date have been the lack of uniformity, which makes it difficult to compile statistics on an Australia-wide basis, and the lack of data on the effort involved in taking fish (time spent fishing, gear used, etc.). Recognizing these weaknesses, the Commonwealth-States Fisheries Conference in 1960 appointed a Statistics Committee 'to examine all aspects of fisheries statistics and fully document a proposed system for submission to the States and Commonwealth for approval'.

Model system of catch and effort statistics, 1962

The model system of catch and effort statistics designed by the Committee was adopted by the Commonwealth-States Fisheries Conference in 1962. The new system was introduced in Tasmania in 1963 and in Victoria and Western Australia in 1964. The system was introduced in Queensland for the otter trawl fishery early in 1965, but there are no definite plans at present to extend the system to other fisheries. Arrangements are proceeding for the introduction of the model system in New South Wales, but there are no plans as yet for the introduction of the system in South Australia.

Under the new system fishermen are asked to report, on a monthly basis, for the various fishing methods used, catch of each species taken and the locality where the greatest proportion of the catch is taken. Fishermen are asked to record catch in terms of landed weight, and appropriate conversion factors are used to obtain live weight where this is required. A grid system of 1° rectangles (relating to latitude and longitude) is used for recording location of catches at sea, and estuaries and inland waters are recorded where appropriate. Other data obtained include details of fishing effort, ports at which catch is landed, and employment details.

The eventual implementation of this system in all States is expected to ensure the availability of statistical information of a much higher standard in the future. In addition to the new system of catch and effort statistics, a uniform boat registration system is now being introduced by the States. This new system will eventually ensure that details of various characteristics of the commercial fishing fleet are available on a uniform basis for all States.

Boats and equipment used in fisheries

Fish, crustaceans and molluscs (edible)

The boats used for the estuarine fisheries are mostly small vessels, propelled by diesel or petrol engines of low power. The offshore vessels range in length from 30 feet to 120 feet and are almost invariably powered by diesel engines. Many of them have insulated holds to carry fish in ice, and some of the crayfish boats are fitted with wells in which the catch is kept alive. Some vessels have dry refrigeration, and others, including some of the tuna live-bait pole-fishing vessels, are equipped with brine refrigeration.

A recent survey showed that about 50 per cent of Australia's commercial fishing fleet, including tenders, consists of vessels up to twenty feet in length, about 25 per cent are in the 20-29 feet category, and the remainder are greater in length. Only a very small number are greater than fifty feet in length. It is hoped that more precise information on this aspect of the fishing fleet will be available in the future when an improved boat registration system is adopted in all States. Almost every type of fishing equipment is used. The following table sets out the equipment most commonly used for the main types of fish, crustaceans and molluscs.

FISHING EQUIPMENT USED IN AUSTRALIA

Type of fish	Equipment used
Mullet . . .	Beach seine, gill net
Shark (edible) . . .	Long-lines, gill net
Australian salmon . . .	Beach seine
Barracouta . . .	Trolling lines
Flathead . . .	Danish seine, otter trawl
Snapper . . .	Long-lines, traps, gill net, hand-line
Morwong . . .	Danish seine, otter trawl, traps
Whiting . . .	Handlines, Danish seine, beach seine
Garfish . . .	Gill net, beach seine
Mackerel . . .	Trolling lines
Tuna(a) . . .	Pole and live-bait, trolling lines, gill net, purse seine
Prawns . . .	Otter trawl, beam trawl, seine net
Crayfish . . .	Pots, traps
Scallops . . .	Dredge, otter trawl

(a) Lampara nets and purse seines are used for taking live bait for tuna.

Pearls, pearl-shell and trochus-shell; whaling

Ketch-rigged luggers about fifty-five feet long which carry crews of eight to fourteen members are used for pearl and pearl-shell fishing around Australia.

The whaling industry is highly mechanized. Standard equipment includes aircraft to locate whales, diesel-powered catchers of about 100 to 125 feet in length, and tow boats.

Boats and equipment employed, by industry

The following two tables show details of boats and equipment employed in the taking of fish, crustaceans and edible molluscs, pearl-shell and trochus-shell, and the number of chasers and stations engaged in whaling operations. The reservations mentioned on page 1000, regarding the use of employment information are also applicable to these tables. Boats employed in more than one industry are classified to their main activity.

**FISHERIES: BOATS AND EQUIPMENT EMPLOYED AND WHALING STATIONS
OPERATING, STATES AND NORTHERN TERRITORY, 1964-65**

—	N.S.W.	Vic.	Qld	S.A.	W.A.(a)	Tas.	N.T.	Aust.
General fisheries—								
Boats employed No.	2,724	897	1,536	2,300	1,438	503	28	9,426
Value of boats and equipment \$'000	6,652	4,971	5,278	6,258	9,247	3,922	73	36,401
Edible oyster fisheries—								
Boats employed No.	1,379	..	40	..	..	..	..	1,419
Value of boats and equipment \$'000	1,107	..	18	n.a.	..	..	..	1,125
Pearl-shell and trochus-shell—								
Boats employed No.	..	..	28	n.a.	10	..	2	40
Value of boats and equipment \$'000	..	..	n.a.	..	108	..	30	n.a.
Whaling—								
Chasers No.	..	..	..	..	3	..	..	3
Stations operating No.	..	..	..	..	1	..	..	1

(a) Year ended December 1964.

**FISHERIES: BOATS AND EQUIPMENT EMPLOYED AND WHALING STATIONS
OPERATING, AUSTRALIA, 1960-61 TO 1964-65**

—	1960-61	1961-62	1962-63	1963-64	1964-65
General fisheries—					
Boats employed No.	7,756	8,147	8,574	8,473	9,426
Value of boats and equipment . \$'000	24,822	25,798	28,298	31,794	36,401
Edible oyster fisheries—					
Boats employed No.	1,449	1,349	1,294	1,424	1,419
Value of boats and equipment . \$'000	824	968	922	976	1,125
Pearl-shell and trochus-shell—					
Boats employed No.	85	56	60	53	40
Value of boats and equipment . \$'000	934	508	550	480	n.a.
Whaling—					
Chasers No.	12	11	8	3	3
Stations operating "	4	4	2	1	1

Employment in fisheries**Census data**

In the following table, which shows particulars collected in the population censuses of Australia at 30 June 1947, 1954 and 1961, the numbers of persons whose industry statements were classified to 'fishing' are shown together with the numbers engaged in all primary industries and the total work force. The census classification 'fishing' includes such activities as fishing, whaling, pearl-shell fishing, etc. An adjustment was made to the 1947 and 1954 industry data by distributing over the range of recorded industry the number of persons whose industry was not stated. No such adjustment was made to the 1961 figures.

PERSONS ENGAGED IN FISHING: AUSTRALIA, CENSUSES, 1947 TO 1961

	Census, 30 June—		
	1947	1954	1961
Persons engaged in—			
Fishing	10,656	8,637	8,252
All primary industries	563,607	560,100	513,286
Total work force	3,196,431	3,702,022	4,225,096
Persons engaged in fishing as a proportion of—			
All primary industries %	1.9	1.5	1.6
Total work force %	0.3	0.2	0.2

Annual employment by industry

The following two tables show details of persons engaged in the taking of fish, crustaceans and edible molluscs, pearl-shell and trochus-shell, and in whaling. These statistics are derived mainly from the licensing records of the various State fisheries authorities. Because the definitions and licensing procedures used by these authorities are not uniform the statistics should not be used to compare the relative productivities of fishing industries in the several States. Figures for employment in general fisheries in 1962-63 to 1964-65 are not comparable with those for previous years because licensed part-time (non-commercial) fishermen were included in the total for South Australia prior to 1962-63. However, since 1962-63, an estimate for full-time (commercial) fisherman engaged has been included. Persons engaged in more than one industry are classified according to their main activity, and so may be classified differently from one year to the next.

EMPLOYMENT IN FISHERIES: STATES AND NORTHERN TERRITORY, 1964-65
(Persons engaged)

Industry	N.S.W.	Vic.	Qld	S.A.	W.A.(a)	Tas.	N.T.	Aust.
General fisheries	2,564	1,518	2,007	(b)2,000	2,299	957	69	11,414
Edible oyster fisheries	894	..	99	n.a.	4	..	..	997
Pearl-shell and trochus-shell . . . . .	..	..	408	..	103	..	22	533
Whaling(c)—At sea . . . . .	..	..	..	..	45	..	..	45
Ashore . . . . .	..	..	..	..	38	..	..	38

(a) Figures are for the year ended December 1964. (b) In addition, approximately 7,300 (non-commercial) licensed fishermen operated on a part-time basis. (c) Estimated.

EMPLOYMENT IN FISHERIES: AUSTRALIA, 1960-61 TO 1964-65
(Persons engaged)

Industry	1960-61	1961-62	1962-63	1963-64	1964-65
General fisheries	14,955	15,878	(a) 11,544	(a) 11,862	(a) 11,414
Edible oyster fisheries	822	993	1,154	1,467	997
Pearl-shell and trochus-shell	995	724	727	640	533
Whaling(b)—At sea	161	123	85	42	45
Ashore	240	164	90	40	38

(a) Not comparable with previous years; see text above. (b) Estimated.

Production, processing and domestic marketing of
fisheries products

Fish

The following tables show details of the production of the main types of fish caught in each State and the Northern Territory in 1964-65 and throughout Australia for the years 1960-61 to 1964-65.

FISH: PRODUCTION, BY TYPE, STATES AND NORTHERN TERRITORY, 1964-65
(’000 lb. estimated live weight)

Type	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
Marine types—								
Tuna	5,183	19	120	10,430	33	54	..	15,838
Mullet	6,145	919	2,903	610	1,416	152	1	12,146
Shark	1,977	5,076	17	1,937	802	659	1	10,470
Australian salmon	2,010	1,223	..	1,155	3,401	501	..	8,291
Flathead	5,052	1,527	170	..	17	69	..	6,836
Barracouta	362	4,134	..	..	..	2,018	..	6,514
Snapper	1,650	414	82	647	1,083	..	..	3,877
Whiting	678	268	451	1,810	451	..	..	3,658
Morwong	2,775	426	..	..	10	7	..	3,218
Mackerel	210	..	1,873	..	230	2	1	2,316
Tailor	511	107	938	..	192	..	..	1,748
Ruff . . . . .	..	96	..	530	881	..	..	1,507
Garfish	261	281	153	630	52	44	..	1,422
Luderick	1,192	71	93	..	..	..	..	1,356
Leatherjacket	1,295	29	..	..	20	..	..	1,343
Bream (incl. tarwhine)	590	204	356	50	92	..	1	1,293
Other	4,885	1,598	1,809	987	1,681	131	310	11,401
Total, marine	34,777	16,393	8,965	18,786	10,361	3,637	316	93,234
Freshwater types	490	292	n.a.	400	..	..	..	(a)1,183
Grand total	35,267	16,685	(a)8,965	19,186	10,361	3,637	316	a 94,417

(a) Excludes freshwater fish caught in Queensland, particulars of which are not available.

FISH: PRODUCTION, BY TYPE, AUSTRALIA, 1960-61 TO 1964-65
(’000 lb. estimated live weight)

Type	1960-61	1961-62	1962-63	1963-64	1964-65
Marine types—					
Tuna	9,767	10,616	11,005	17,932	15,838
Mullet	11,362	13,242	13,736	12,496	12,146
Shark	7,636	8,691	10,524	10,463	10,470
Australian salmon	6,630	11,534	7,794	11,260	8,291
Flathead	5,141	6,458	6,828	6,151	6,836
Barracouta	5,981	6,810	4,842	4,331	6,514
Snapper	4,684	3,756	4,107	4,160	3,877
Whiting	3,267	3,513	3,699	3,498	3,658
Morwong	2,261	2,774	4,949	4,545	3,218
Mackerel	1,779	1,631	2,192	2,215	2,316
Tailor	1,407	1,148	956	1,627	1,748
Ruff	1,288	1,188	1,360	1,093	1,507
Garfish	1,315	1,465	1,645	1,740	1,422
Luderick	1,096	1,020	1,311	1,293	1,356
Leatherjacket	2,516	2,193	1,955	1,125	1,343
Bream (incl. tarwhine)	1,236	1,382	1,531	1,233	1,293
Other	10,137	9,780	9,941	10,907	11,401
Total, marine	77,500	87,200	88,375	96,067	93,234
Freshwater types(a)	1,597	1,260	1,309	1,015	1,183
Grand total(a)	79,097	88,460	89,684	97,082	94,417

(a) Excludes freshwater fish caught in Queensland, particulars of which are not available.

Crustaceans

In terms of gross value of catch, the importance of crustaceans has increased in recent years, and is considerably greater than that of fish. The crayfish is the most important crustacean. The bulk of Australian production of crayfish is exported, nearly all going to the United States of America.

**CRUSTACEANS: PRODUCTION, BY TYPE, STATES AND
NORTHERN TERRITORY, 1964-65**
(^{'000} lb. whole weight)

Type	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
Crayfish(a)	424	1,291	30	4,928	16,378	3,336	..	26,386
Prawns	4,501	8	5,737	..	1,829	..	..	12,076
Crabs	157	..	638	..	28	..	9	832
Total	5,081	1,299	6,405	4,928	18,235	3,336	9	39,293

(a) Includes freshwater lobster caught in New South Wales and shovel-nosed lobster taken in Queensland.

**CRUSTACEANS: PRODUCTION, BY TYPE, AUSTRALIA
1960-61 TO 1964-65**
(^{'000} lb. whole weight)

Type	1960-61	1961-62	1962-63	1963-64	1964-65
Crayfish(a)	27,494	29,356	31,400	27,633	26,386
Prawns	6,529	9,322	12,616	13,369	12,076
Crabs	787	875	842	708	832
Total	34,810	39,552	44,858	41,711	39,293

(a) Includes freshwater lobster caught in New South Wales and shovel-nosed lobster taken in Queensland.

Molluscs (edible)

A fast-developing scallop production since 1964 led to scallop exports rising to 1.9 million pounds weight for the 1964-65 period. France provided the largest market. Abalone has also become an export commodity, but production is on a smaller scale and is likely to remain so.

MOLLUSCS(a): PRODUCTION, BY TYPE, STATES, 1964-65
(^{'000} lb. gross (in-shell) weight)

Type	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
Scallops	..	21,371	452	..	(b)	2,916	(c) 24,739
Oysters	14,297	7	305	..	28	..	14,636
Abalone	56	393	..	21	..	496	966
Mussels	..	334	..	..	..	..	334
Squid	..	119	95	..	3	1	217
Octopus	..	8	..	..	5	..	13
Cuttlefish	..	1	..	..	..	..	1
Total	14,353	22,233	851	21	36	3,413	(d) 40,907

(a) Excludes pipis taken in New South Wales, details of which are not available for publication. (b) Not available for publication. (c) Excludes Western Australia. (d) Incomplete see footnote (c).

MOLLUSCS(a): PRODUCTION BY TYPE, AUSTRALIA, 1960-61 TO 1964-65
(^{'000} lb. gross (in-shell) weight)

Type	1960-61	1961-62	1962-63	1963-64	1964-65
Scallops . . .	6,896	5,172	(b) 6,498	(b) 15,373	(b) 24,739
Oysters . . .	14,220	12,613	13,029	12,775	14,636
Abalone . . .	..	..	..	156	966
Mussels . . .	394	646	683	410	334
Squid . . .	228	319	292	304	217
Octopus . . .	36	58	18	16	13
Cuttlefish . . .	34	7	1	1	1
Total . . .	21,808	18,815	(c) 20,521	(c) 29,037	(c) 40,907

(a) Excludes pipis, particulars of which are not available for publication. (b) Excludes Western Australia, particulars of which are not available for publication. (c) Incomplete; see footnote (b).

Pearls, pearl-shell and trochus-shell

In recent years the production of pearl-shell has declined, owing to the development of plastics. However, the advent of pearl culture has since created a growing demand for live pearl-shell. Particulars of cultured pearl production are not available for publication and particulars of the production of natural pearls are not available.

PEARL-SHELL AND TROCHUS-SHELL: PRODUCTION
STATES AND NORTHERN TERRITORY, 1960-61 TO 1964-65
(^{'000} lb.)

—	1960-61	1961-62	1962-63	1963-64	1964-65
Pearl-shell—					
Queensland(a) . .	1,821	860	788	578	645
Western Australia(b)	1,270	801	782	542	310
Northern Territory(a)	222	147	115	11	12
<i>Australia . . .</i> (c)	<i>3,313</i>	<i>1,809</i>	<i>1,685</i>	<i>1,131</i>	<i>967</i>
Trochus-shell—					
Queensland(a) . .	309	457	357	142	69
Western Australia(b)	10	..	..	..	..
<i>Australia . . .</i>	<i>319</i>	<i>457</i>	<i>357</i>	<i>142</i>	<i>69</i>

(a) Season ended January of years shown. Shell taken by Queensland luggers operating in Northern Territory waters is included in Queensland. (b) Season ended December of years shown. (c) Excludes pearl-shell taken by Japanese pearl-ers operating in Australian waters. The quantities taken were as follows: 1960-61, 860,000 lb.; 1961-62, 813,000 lb. The Japanese pearling fleet did not operate in Australian waters after 1961-62.

Whales

Only sperm whales were caught during the 1965 season and no quotas were imposed on the catch. Quotas previously set by the Department of Primary Industry for the baleen species were in terms of humpback whales, and for this purpose 1 blue whale was taken as the equivalent of 2 fin, 2½ humpback, 6 sei, or 6 bryde whales.

WHALES TAKEN: AUSTRALIA(a), 1961 TO 1965
(Source: Fisheries Branch, Department of Primary Industry)
(Number)

—	1961	1962	1963	1964	1965
Types of baleen whales taken—					
Humpback	1,311	716	87	..	..
Blue . . . . .	..	..	1	..	..
Bryde	2	..	..	..	..
Sei . . . . .	..	2	..	..	..
Sex of baleen whales—					
Male	755	404	37	..	..
Female	556	314	51	..	..
<i>Total baleen whales taken</i>	<i>b 1,313</i>	<i>718</i>	<i>88</i>	<i>..</i>	<i>..</i>
Humpback equivalent(c)	1,312	717	89	..	..
Quota of humpback whales(c)	1,390	1,300	550	..	..
Sex of sperm whales—					
Male	451	570	587	695	636
Female	3	21	11	15	32
<i>Total sperm whales taken</i>	<i>454</i>	<i>591</i>	<i>598</i>	<i>710</i>	<i>668</i>
Total whales taken	1,767	1,309	686	710	668

(a) Excludes details of Norfolk Island.
text on page 1003.

(b) The sex of two whales processed was not recorded.

(c) See

Processing of fish

Quick-freezing is used at sea and ashore to preserve fish before delivery to consumers. The main technique employed in Australia is brine-freezing, as used extensively in the tuna and salmon fisheries.

Fish canning in Australia on a modern scale dates from 1937, before which the only fish canning carried out was on an occasional basis by factories handling other foodstuffs. In 1964-65 there were 17 canneries in Australia dealing exclusively with marine products, as well as several other canneries using small amounts of fish in general canning operations. The main canneries handle tuna (Eden, New South Wales; Melbourne, Victoria; Port Lincoln, South Australia); Australian salmon (Eden, New South Wales; Melbourne, Victoria; Port Lincoln and Adelaide, South Australia; Albany, Western Australia; Margate, Tasmania); barracouta (Melbourne and Portland, Victoria; Margate, Tasmania); scallops (Morningson, Victoria); and abalone (Melbourne, Victoria).

Other methods of fish processing include smoking and bottling, but these are undertaken on a minor scale only. Among the few fish by-products produced are small quantities of fish meal.

FISH PROCESSING (EXCEPT FREEZING): AUSTRALIA, 1960-61 TO 1964-65

	1960-61	1961-62	1962-63	1963-64	1964-65
Number of factories	18	20	25	25	32
Fish used(a)—	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.
Whole	13,737	18,494	15,447	17,506	16,745
Headed and/or gutted	3,758	6,796	4,972	5,148	5,037
<i>Estimated live weight equivalent(b), fish used</i>	<i>18,200</i>	<i>26,500</i>	<i>21,300</i>	<i>23,600</i>	<i>22,700</i>
Production(c)—					
Canned fish(d)—					
Australian salmon	3,480	5,772	3,976	5,396	3,884
Tuna	3,070	3,624	4,201	4,691	5,448
Other	1,647	2,644	2,150	1,180	1,763
<i>Total, canned fish</i>	<i>8,197</i>	<i>12,040</i>	<i>10,327</i>	<i>11,267</i>	<i>11,095</i>
Smoked fish	301	181	286	274	220
Fish paste	1,261	1,027	1,053	1,212	943
Fish meal(e)	2,041	2,640	2,076	2,222	2,390

(a) Fish used for canning (including fish loaf), smoking and the manufacture of fish paste, but excluding the weight of oysters, other shellfish and crustaceans used for canning. (b) The weight of headed and/or gutted fish is taken as 85 per cent of live weight. (c) Excludes canned crayfish, lobsters, prawns, oysters, and clams, details of which are not available for publication. (d) Includes fish loaf, fish cakes, etc. (e) Excludes whale meal.

Processed crustaceans and molluscs

Quick-freezing is also used to preserve crustaceans and molluscs. The chief technique employed to preserve crayfish and scallops is air blast freezing, while plate contact freezing is being used on an ever increasing scale for prawns, scallops and abalone. Crayfish for the domestic market are usually cooked whole and then frozen, as are some exported crayfish. However, the major proportion of crayfish exports consists of frozen raw craytails. Most prawns for domestic consumption are sold in a whole cooked condition. Some are also exported in this form, after freezing. As a rule, however, the majority of prawn exports consist of green headless prawns, sometimes de-veined, sometimes split in 'butterfly' style, but in all cases frozen into five-pound blocks. Scallops are normally frozen in cello-wrapped five-pound blocks, although packaging of individually frozen scallops in polythene pouches is growing in popularity for local consumer packs. Canned abalone is now packed for the Asian market, as well as abalone soup for domestic and overseas sale. Small quantities of frozen abalone are also now being exported to the United States of America and Asia.

Whale processing

Oil from sperm whales is used in the manufacture of soap, plastics and watch lubricants, and in automatic transmission systems in motor cars.

WHALE PROCESSING: AUSTRALIA(a), 1961 TO 1965

	1961	1962(b)	1963(b)	1964(b)	1965(b)
Quantity of whale oil produced—					
Baleen oil barrels(c)	59,187	30,849	3,865	..	..
Sperm oil " '000	18,929	24,833	23,860	27,534	25,002
Value of whale oil produced	2,360	1,564	886	620	510
Value of by-products (meal, meat, solubles, etc.) "	692	448	138	120	244
<i>Total value of products "</i>	<i>3,052</i>	<i>2,012</i>	<i>1,024</i>	<i>740</i>	<i>754</i>

(a) Excludes details of Norfolk Island. (b) Includes produce from whales taken for scientific research.
(c) 6 barrels = 1 ton.

Domestic marketing of fisheries products

Although virtually the whole of the tuna and Australian salmon catches and a large proportion of the barracouta catch are canned, the greater part of Australian fisheries production is marketed fresh or frozen.

Marketing arrangements for fresh fish vary from State to State. In New South Wales fish marketing is the responsibility of the New South Wales Fish Authority, which operates the Metropolitan and Wollongong Fish Markets. In other coastal centres of New South Wales fishermen's co-operatives may become registered as local fish markets. Fish for industrial use do not pass through any of these markets. The Queensland Fish Board sells all production on behalf of fishermen in that State, and has branches in eighteen centres, as well as depots at eight others. The Board also purchases fish on its own account to stabilize prices. In Victoria, Western Australia and Tasmania the marketing of fish is undertaken through agents. In South Australia the great majority of the fishermen are members of the South Australian Fishermen's Co-operative Ltd., which handles the whole of their production. Canned fish and frozen fish in the form of consumer packs are marketed mainly by the supermarket-type retail establishments. Oysters are usually sold live in the shell directly to restaurants, or are shelled and bottled before being sent to retailers.

Value of fisheries production

The following tables show details of the values of production of edible fisheries products, pearl-shell and trochus-shell for the years 1960-61 to 1964-65. *See also* the chapter Miscellaneous for an explanation of the value terms used.

FISHERIES PRODUCTION: GROSS VALUE
STATES AND NORTHERN TERRITORY, 1964-65
 (\$'000)

Product	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
Fish(a)	4,683	2,030	1,485	2,282	1,300	346	55	12,179
Crustaceans	2,458	908	2,292	2,833	11,787	2,105	4	22,387
Molluscs (edible)	(b) 2,689	1,171	84	2	(c) 8	229	..	4,183
Pearl-shell(d)	..	..	(e) 187	..	(f) 182	..	(e) 2	371
Trochus-shell	..	..	(e) 5	..	..	..	..	5

(a) Excludes freshwater fish caught in Queensland, particulars of which are not available. (b) Excludes pipis, particulars of which are not available for publication. (c) Excludes scallops, particulars of which are not available for publication. (d) Queensland figure includes pearl-shell taken by Queensland luggers operating in Northern Territory waters. (e) Season ended January. (f) Season ended December.

FISHERIES PRODUCTION: GROSS VALUE, AUSTRALIA
1960-61 TO 1964-65
 (\$'000)

Product	1960-61	1961-62	1962-63	1963-64	1964-65
Fish(a)	11,814	12,150	12,284	13,660	12,179
Crustaceans	11,812	14,954	16,012	15,629	22,387
Molluscs (edible)(b)	2,372	2,504	2,808	3,350	4,183
Pearl-shell(c)	(d) 1,448	(d) 722	668	391	371
Trochus-shell(c)	54	56	36	10	5

(a) Excludes freshwater fish caught in Queensland in 1960-61 and subsequent years. (b) Excludes pipis in New South Wales and scallops in Western Australia. (c) Season ended December (Western Australia) or January (Queensland and Northern Territory) of years shown. (d) Excludes pearl-shell taken by Japanese pearlers in Australian waters. The Japanese pearling fleet did not operate in Australian waters after 1961-62.

**FISHERIES: GROSS AND LOCAL VALUE OF PRODUCTION
STATES AND NORTHERN TERRITORY, 1964-65**
(\$'000)

State or Territory	Gross value(a)	Marketing costs	Local value(b)
New South Wales	9,830	1,567	8,263
Victoria	4,108	557	3,551
Queensland	5,737	439	5,298
South Australia	5,118	640	4,478
Western Australia	15,218	51	15,167
Tasmania	2,686	492	2,194
Northern Territory	71	n.a.	71
Australia	42,768	3,746	39,022

(a) Gross production valued at principal markets.

(b) Gross production valued at place of production.

In the following table the local value of fishing and whaling production and the local value per head of population are shown by States. Because the value of materials used in the course of production is not available for all States it is not possible to show a comparison of net values.

**FISHERIES: LOCAL VALUE OF PRODUCTION, STATES
1960-61 TO 1964-65**

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.(a)
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LOCAL VALUE
(\$'000)

1960-61	6,598	3,574	2,744	2,474	8,440	1,626	25,626
1961-62	6,576	3,482	3,266	2,758	10,582	1,818	28,588
1962-63	7,600	3,248	3,844	2,946	11,128	1,770	30,622
1963-64	7,856	4,202	4,324	3,436	10,088	1,726	31,684
1964-65	8,263	3,551	5,298	4,478	15,167	2,194	39,022

LOCAL VALUE PER HEAD OF POPULATION
(\$)

1960-61	1.8	1.2	1.8	2.6	11.6	4.6	2.4
1961-62	1.8	1.2	2.2	2.8	14.2	5.2	2.8
1962-63	1.8	1.2	2.4	3.0	14.4	5.0	2.8
1963-64	2.0	1.4	2.8	3.4	12.8	4.8	2.8
1964-65	2.0	1.1	3.3	4.3	19.0	6.0	3.5

(a) Includes Northern Territory.

Consumption of edible fisheries products

Particulars of the estimated supplies of fish, crustaceans and molluscs available for consumption per head of population, in terms of edible weight, are included in the table below. For the purpose of compiling this table, an allowance has been made for the non-commercial fish catch.

FISHERIES PRODUCTS: ESTIMATED SUPPLIES AVAILABLE FOR CONSUMPTION AUSTRALIA, 1960-61 TO 1964-65 (lb. edible weight per head per annum)

	1960-61	1961-62	1962-63	1963-64	1964-65
Fresh or frozen—					
Fish—					
Australian origin	3.1	3.1	3.3	3.3	3.2
Imported	3.0	2.7	2.7	3.1	3.0
Crustaceans and molluscs	1.2	1.0	1.3	1.2	1.4
Cured (including smoked and salted)	1.1	0.9	1.0	1.0	0.7
Canned—					
Australian origin	0.7	0.8	0.9	0.8	1.0
Imported	2.6	2.0	1.9	2.3	2.4
Total	11.7	10.5	11.1	11.7	11.7

Oversea trade in fisheries products

Values shown in this section are expressed as \$A f.o.b. port of shipment. The tables of exports relate to Australian produce only, but quantities and values quoted in the text sometimes include re-exports, the amounts involved, however, generally being small.

Edible fisheries products

A large proportion of the fish consumed in Australia is imported. Of the edible products imported in 1964-65, those originating in United Kingdom were valued at \$6.2 million (26 per cent of the total value), Japan, \$5.7 million (24 per cent), Canada, \$1.9 million (8 per cent), and South Africa, \$1.7 million (7 per cent).

The United Kingdom supplied 13.7 million lb. (34 per cent, valued at \$4.0 million) of the fresh or frozen fish products imported in 1964-65, South Africa, 5.8 million lb. (15 per cent, valued at \$0.8 million), New Zealand, 5.7 million lb. (14 per cent, valued at \$1.4 million), and Denmark, 3.8 million lb. (10 per cent, valued at \$1.2 million). Of the smoked or dried fish products imported in 1964-65, South Africa supplied 4.1 million lb. (45 per cent, valued at \$0.9 million) and the United Kingdom, 2.9 million lb. (32 per cent, valued at \$0.5 million). Japan supplied 9.6 million lb. (37 per cent, valued at \$4.9 million) of the canned fish products imported in 1964-65.

The value of exports of edible products in 1964-65 was 27 per cent more than that in 1963-64. The value of crayfish tails exported in 1964-65 was 75 per cent of the value of all exports of edible products. Of all crayfish tails exported in 1964-65, 98 per cent (7,678,000 lb., valued at \$13,403,000) were consigned to the United States of America.

The table below gives further details of Australia's overseas trade in edible products in the years 1962-63, 1963-64 and 1964-65.

**OVERSEA TRADE IN EDIBLE FISHERIES PRODUCTS: AUSTRALIA
1962-63 TO 1964-65**

	Quantity ('000 lb.)			Value (\$A'000 f.o.b.)		
	1962-63	1963-64	1964-65	1962-63	1963-64	1964-65
IMPORTS						
Fresh and frozen(a)	33,630	40,177	39,965	7,644	10,384	10,671
Smoked and dried	8,945	8,523	7,591	1,669	1,912	1,919
Potted and concentrated(b)	256	184	200	188	130	159
Canned—						
Herrings	3,333	4,376	4,773	752	934	1,060
Salmon	9,158	11,642	11,912	4,510	5,475	6,228
Sardines and pilchards	6,136	6,494	6,341	1,921	1,967	2,003
Tuna	415	497	316	121	149	90
Other fish	1,869	1,192	1,581	326	264	461
Crustaceans and molluscs	619	887	1,026	448	580	756
<i>Total canned</i>	<i>21,529</i>	<i>25,087</i>	<i>25,949</i>	<i>8,078</i>	<i>9,368</i>	<i>10,598</i>
Products not elsewhere included	1,643	1,980	2,490	282	400	675
Grand total	66,003	75,951	76,197	17,862	22,195	24,023

EXPORTS

(Australian produce only; excludes re-exports)

Fresh or frozen(c)—						
Crayfish tails	9,002	9,121	7,801	10,338	10,931	13,600
Whole crayfish	1,380	1,616	540	955	1,112	453
Fish	1,636	3,338	2,726	255	433	329
Other	1,260	2,374	4,984	988	1,731	3,363
Canned—						
Salmon	38	47	41	13	15	15
Other fish	113	155	204	24	32	77
Crustaceans and molluscs	25	87	553	22	34	290
<i>Total canned</i>	<i>176</i>	<i>289</i>	<i>798</i>	<i>60</i>	<i>82</i>	<i>382</i>
Products not elsewhere included	74	20	8	5	28	6
Grand total	13,528	16,758	16,857	12,600	14,316	18,133

(a) Excludes frozen smoked, which is included with 'Smoked and dried'. (b) Includes extracts and caviare.
(c) Excludes frozen smoked, which is included in item Products not elsewhere included.

Pearls

Cultured pearls valued at \$1,078,000 were imported into Australia in 1964-65. This was 67 per cent greater than the value imported in 1963-64 (\$646,000). In 1964-65 imports of cultured pearls valued at \$1,066,000 (99 per cent of the total value of cultured pearl imports) originated in Japan. Cultured pearls exported from Australia in 1964-65 were valued at \$1,299,000, \$348,000 more than 1963-64. In 1964-65 cultured pearl exports consigned to Japan were valued at \$1,248,000, 96 per cent of the value of all cultured pearls shipped in that year.

The value of natural pearls exported from Australia in 1964-65 was \$28,000, an increase of \$15,000 compared with 1963-64 (\$13,000). In 1964-65 natural pearls consigned to Japan were valued at \$19,000, 68 per cent of the value of all natural pearls shipped in that year.

Pearl, etc. shell and marine animal oils

Of the pearl-shell exported in 1964-65, 378,000 lb. (34 per cent) were consigned to the United States of America, 283,000 lb. (25 per cent) to the Federal Republic of Germany, and 243,000 lb. (22 per cent) to Japan. Of the trochus-shell exported, 132,000 lb. (66 per cent) were consigned to the Federal Republic of Germany, and 28,000 lb. (14 per cent) to Italy. Imports of shells included quantities of pearl, trochus and green snail shell from New Guinea, Papua and the Pacific Islands, which were subsequently re-exported from Australia.

OVERSEA TRADE IN SHELLS: AUSTRALIA, 1962-63 TO 1964-65

	Quantity ('000 lb.)			Value (\$A'000 f.o.b.)		
	1962-63	1963-64	1964-65	1962-63	1963-64	1964-65
Imports—						
<i>Total imports</i>	105	166	81	19	32	23
Exports(a)—						
Pearl-shell	1,811	1,226	1,121	686	402	425
Trochus-shell	176	295	202	25	30	19
Other	38	61	21	11	19	8
<i>Total exports</i>	2,025	1,582	1,344	722	452	452

(a) Australian produce only; excludes re-exports.

OVERSEA TRADE IN MARINE ANIMAL OILS: AUSTRALIA 1962-63 TO 1964-65

	Quantity ('000 gals.)			Value (\$A'000 f.o.b.)		
	1962-63	1963-64	1964-65	1962-63	1963-64	1964-65
Imports—						
Whale oil from—						
Netherlands	24	78	4	14	76	6
Japan	311	527	1,208	198	466	1,162
Other countries	75	48	241	94	78	250
<i>Total whale oil</i>	410	653	1,453	305	620	1,418
Cod liver oil	95	86	81	88	76	79
Unrefined fish oils	107	120	125	99	112	119
Other	28	45	43	39	55	63
<i>Grand total imports</i> . .	640	904	1,702	532	863	1,679
Exports(a)—						
Whale oil	950	1,253	1,738	644	927	864
Other	1	..	..	11	..	..
<i>Total exports</i>	951	1,253	1,738	655	927	864

(a) Australian produce only; excludes re-exports.

CHAPTER 26

MINERAL INDUSTRY

Further detailed statistics and information on the subjects dealt with in this chapter are contained in the annual printed bulletin *Non-Rural Primary Industries and Value of Production* issued by this Bureau and in *The Australian Mineral Industry—Annual Review* and other publications issued by the Bureau of Mineral Resources, Geology and Geophysics, which also issues, in conjunction with this Bureau, a quarterly publication, *The Australian Mineral Industry*, comprising two parts—Part 1—Quarterly Review and Part 2—Quarterly Statistics. The annual mimeographed statistical bulletin *Mining and Quarrying* of this Bureau contains economic statistics of the industry prepared and published as soon as possible after the data have been compiled. Two monthly statistical bulletins *Minerals and Mineral Products* and *The Gold Mining Industry, Australia* are issued also, and other current statistics on mining or mine products are contained in the *Quarterly Summary of Australian Statistics*, the *Monthly Review of Business Statistics*, the *Digest of Current Economic Statistics*, and the *Monthly Bulletin of Production Statistics*.

Geology

General geology

The greatest part of the area of outcropping rock on the Australian continent is Precambrian in age. These basement rocks form the western and central core of the continent and are flanked by younger Palaeozoic rocks, which, along the eastern edge of the continent, form a belt several hundred miles wide extending from north Queensland to Tasmania. Mesozoic sediments overlies large areas of the continent and reach their greatest development in central Queensland. Cainozoic rocks occur mainly in the southern parts of Victoria and South Australia and as residual basalt cappings over an extensive area of the Palaeozoic rocks of eastern Australia.

Economic geology

Minerals of economic significance occur widely throughout the Precambrian and Palaeozoic rocks of the continent. Palaeozoic mineralization is perhaps more varied, but the Palaeozoic deposits now being worked are in general smaller than those found in Precambrian rocks. Most of Australia's metallic mineral deposits occur within two broad regions, a region of Precambrian rocks in the west and central areas of the continent and a region of younger Palaeozoic rocks in the east. This situation is especially true in the case of the larger base metal deposits and also for smaller deposits of metallic minerals.

The major deposits of metallic minerals, including iron ore, lead, zinc, silver, copper, uranium, and gold are contained in the Precambrian rocks of the Australian shield. Smaller deposits of tin, tungsten, tantalum, mica, beryllium, manganese, and cobalt are also contained in these rocks.

The mineralized Palaeozoic rocks contain major deposits of gold, now mostly worked out, and a few large copper and lead-zinc-silver occurrences. Smaller amounts of tin, tungsten, molybdenum, bismuth, and other metals also occur in these rocks.

Outside these two main categories, however, there are some metallic mineral deposits of considerable economic importance which were formed during the Tertiary Period. These include bauxite which occurs as a surface capping over various rocks, mostly of Mesozoic age. Extensive deposits of bauxite occur at Weipa on Cape York peninsula in north Queensland, at Gove on the north-eastern tip of the Northern Territory, in the Darling Range in Western Australia, and near Kalumburu in the north-west of Western Australia. These deposits are the result of a long period of weathering.

Mineral sands, another important exception, contain rutile, zircon, ilmenite, monazite, and other minerals and are particularly well developed on the central and northern New South Wales coast, southern Queensland and south-western Western Australia. The deposits of the eastern States are considered to be derivatives of Mesozoic rocks. The Western Australian deposits are thought to be derivatives of the Precambrian granites of the Australian shield.

Occurrences of fuel minerals (coal, oil and natural gas) are characteristically located in former sedimentary basins. Large areas of Australia are covered by these basins, and more than twenty major sedimentary basins have been identified on the Australian mainland. In addition, sedimentary basins are known to exist in off-shore areas adjacent to the Australian coast. The individual basins range in area from 4,000 to 510,000 square miles and contain marine and continental sedimentary rocks ranging in maximum thickness from 1,000 to about 50,000 feet and including rocks of all ages from Proterozoic to Palaeozoic.

Deposits of black coal in Australia are mainly of Permian age and are located in sedimentary basins in the coastal areas of the eastern States. The majority of the New South Wales and Queensland black coal deposits are bituminous in type. The extensive brown coal deposits of Victoria were formed during the Tertiary Period.

Oil and natural gas have been found in a number of sedimentary basins, but the only proved commercial fields at present are at Moonie, Alton and Conloi in the Surat Basin in south-east Queensland and Barrow Island off the coast of north-west Western Australia. The Moonie deposit is found in rocks of lower Jurassic age. The Barrow Island field, which will begin production in 1967, is mainly of Cretaceous age, but minor oil shows have been recorded from the underlying Jurassic rocks. Other discoveries of potential commercial significance have been made in the Gippsland Basin, off-shore from eastern Victoria (natural gas and oil); at Richmond and Gilmore in Queensland (gas); at Mereenie in the Northern Territory (gas); and at Moomba and Gidgealpa in South Australia (gas). A map of Australia showing the main sedimentary basins and locations of oil and gas discoveries appears on plate 60.

Of the non-metallic minerals, many, such as clay, sand and silica, etc., are not restricted to the rocks of any particular era and are often polycyclic in nature. However, Precambrian rocks do contain important deposits of blue asbestos in Western Australia, limestone and dolomite in South Australia, and mica in the Northern Territory.

Opals are found in the flat-lying sedimentary beds of the Great Artesian Basin in Queensland, New South Wales and South Australia. These opal deposits were formed during the Tertiary Period.

Most of the larger mineral deposits now being mined in Australia are shown in the following table, according to the age of the geological formation in which they are found.

PRINCIPAL AUSTRALIAN MINERAL DEPOSITS

Age of geological formation in which located	Metal or mineral	State or Territory	Locality
Precambrian (more than 520 million years old)	Copper . .	Queensland . .	Mount Isa
		Northern Territory	Tennant Creek
	Gold . .	Western Australia .	Kalgoorlie and other localities
	Iron . .	South Australia .	Middleback Ranges
Palaeozoic (between 200 and 520 million years old)		Western Australia .	Yampi Sound and Pilbara
	Lead-silver-zinc	New South Wales .	Broken Hill
		Queensland . .	Mount Isa
	Black coal .	New South Wales .	Hunter Valley, Lithgow, South Coast
		Queensland . .	Kianga-Moura, Baralaba, Bowen, etc.
		Western Australia .	Collie
	Copper-gold .	Queensland . .	Mount Morgan
		Tasmania . .	Mount Lyell
	Lead-silver-zinc	Tasmania . .	Mount Read and Rosebery
	Tin (lode) .	Queensland . .	Herberton
Mesozoic (between 75 and 200 million years old)		Tasmania . .	North-east of State
	Tungsten .	Tasmania . .	King Island and north-east of State
	Black coal .	Queensland . .	Ipswich
		South Australia .	Leigh Creek
Cainozoic (less than 75 million years old)	Manganese .	Northern Territory	Groote Eylandt
	Bauxite . .	Queensland . .	Weipa
		Western Australia .	Darling Range
	Brown coal .	Victoria . .	Gippsland
	Mineral sands(a)	New South Wales .	North coast
		Queensland . .	South coast
		Western Australia .	South-west coast
	Tin (alluvial) .	New South Wales .	Tingha
		Queensland . .	Herberton
		Tasmania . .	North-east of State

(a) Derived from granites of Palaeozoic age and sandstones of Mesozoic age in eastern Australia and from granites of Precambrian age in Western Australia.

Mineral resources

Australia is self-sufficient in most minerals of economic importance and much more than self-sufficient in some. The following table summarizes, in a general way, known reserves and production of the principal metals and minerals in relation to Australian consumption of these commodities and present export availability. Many qualifications are necessary to a simple summary of this kind and the table should be read in conjunction with the following detailed notes on principal minerals. A map showing the location of principal mining centres, mineral discoveries, and mineral processing centres appears on plate 57.

RESERVES OF MINERALS: AUSTRALIA

(Source: Bureau of Mineral Resources, Geology and Geophysics)

Productive capacity	Reserves adequate	Reserves uncertain	Reserves negligible
Production sufficient for domestic demand and exports	Cadmium Copper Gold Lead Silver Zinc Barite Bauxite Coal (black) Crocidolite asbestos Gypsum Iron ore Mineral sands(b) Opal Salt	Beryl Manganese ore (metallurgical)(a) Talc Tantalite Uranium oxide	
Production sufficient for domestic demand	Coal (brown) Clays (except light grade china clay) Dolomite Felspar Limestone	Glass sands Sillimanite	
Production not sufficient for domestic demand	Lithium minerals Sulphides (as source of sulphur)(c)	Antimony Cobalt Platinum Tin(d) Abrasives Bentonite China clay Chromite Diatomite Fluorite Magnesite Manganese ore (chemical) Mineral pigments Petroleum	Bismuth Molybdenum Asbestos (chrysotile) Phosphate rock
Production nil	Magnesium Potassium salts (from alunite muds)	Arsenic Nickel Diamonds Graphite Vermiculite	Mercury Vanadium Borates Nitrates Sulphur

(a) Exports permitted as an exploration incentive. (b) Ilmenite, monazite, rutile, zircon. (c) At a price disadvantage as compared with imported brimstone for the manufacture of sulphuric acid. (d) Increased production for self-sufficiency or even export probable in near future.

Lead-zinc

Since the discovery in 1883 and subsequent development of the ore body at Broken Hill, Australia has been a major producer of lead and zinc. Ore reserves in the Broken Hill area are estimated to exceed 70 million tons, and further exploration is being undertaken to extend reserves. Mt. Isa, with ore reserves in excess of 27 million tons, is the major lead-zinc deposit in Queensland, and further reserves exist in adjacent leases. In Tasmania substantial lead-zinc deposits are situated at Read-Rosebery near the west coast. In the Northern Territory investigation of a large lead-zinc ore body in the McArthur River area is proceeding.

Copper

The principal deposit of this metal is at Mt. Isa, where ore reserves were estimated at 34 million tons in 1964. Recent discoveries have indicated very large additional reserves at Mt. Isa and further exploration and testing is proceeding. Other important deposits are situated at Mt. Morgan, Queensland, and Mt. Lyell, Tasmania. Small deposits at Ravensthorpe, Western Australia, and Tennant Creek, Northern Territory, have also been developed. In New South Wales recent exploration at Cobar has resulted in the opening of a new operation at a previously abandoned mine, and ore reserves in this area are now estimated to be in excess of 18 million tons.

Aluminium

As a result of the recent discoveries at Weipa, Gove and the Darling Range, Australia's reserves of bauxite are known to be very large, perhaps the largest in the world. Total reserves in the Weipa region are probably in excess of 2,000 million tons, while the deposits at Gove are reported to contain up to 200 million tons of bauxite. The Darling Range deposit has nearly 80 million tons of proved reserves, with a reasonable indication of a further 100 million tons. In addition, another potentially significant deposit has been identified in the Kimberley district of Western Australia.

Tin

The main deposits of tin now being exploited are in the Herberton field inland from Cairns, Queensland, in north and central Tasmania, in south-west Western Australia, and in the New England area and Ardlathan in New South Wales. Exploration and expansion of known deposits is expected to result in Australia again becoming self sufficient in tin by 1969.

Gold

Australia's gold resources are heavily concentrated in Western Australia, mainly in the Kalgoorlie-Coolgardie area. However, small deposits of gold-bearing ore occur in all States. In addition, gold is commonly obtained as a by-product of other mining activities, particularly copper mining. Gold ore reserves at Kalgoorlie were estimated to be about 12 million tons in 1965, with a gold content of between 3.90 and 5.40 dwt per ton.

Iron ore

In recent years very extensive deposits of iron ore have been discovered in Australia. These discoveries have established Australia as one of the most important iron ore provinces in the world. The largest deposits, in the Pilbara region of Western Australia, are currently being developed for export. A smaller deposit in the Savage River region of north-west Tasmania is also under development at present. These deposits are adequate to supply the estimated needs of the Australian iron and steel industry far into the future, as well as providing a large export availability. Total Australian reserves are estimated to be in excess of 15,000 million tons.

Manganese

Australia's known reserves of manganese, which is highly important for the iron and steel industry, are on a far more restricted scale than the deposits of iron ore. The principal deposits currently being worked are in the Pilbara and Peak Hill areas of Western Australia and on Groote Eylandt in the Gulf of Carpentaria. Reserves on Groote Eylandt are believed to be substantial, and testing of the deposits is continuing.

Tungsten

The main deposits of tungsten ores are in northern Tasmania (wolfram) and on King Island (scheelite). Australia's own requirements are small, and production is principally for export.

Mineral sands

Ores of titanium (rutile and ilmenite), zircon (zirconium) and thorium (monazite) occur in beach sands over extensive areas of the north coast of New South Wales, the south coast of Queensland and the south-western coast of Western Australia. Resources are large and easily workable. Australia's reserves of rutile represent the bulk of the world's reserves of this mineral.

Uranium

Australia's known reserves of uranium ore were heavily depleted during the years 1953 to 1963. During this period substantial quantities of uranium concentrate were exported to the United Kingdom and the United States. It was estimated during 1964 that total Australian known commercial reserves of uranium ore contained 10,950 short tons of U_3O_8 . The Mary Kathleen deposit is estimated to contain in excess of three million tons of uranium-bearing ore.

Coal

Australia has adequate coal resources in relation to present and estimated future needs. These resources include coal of all types, except pure anthracite. The table below shows that the major part of the black coal reserves is bituminous. Australia's coal reserves are concentrated mainly in the mainland eastern States. The bituminous coal is located mainly in New South Wales and, to a lesser degree, in Queensland; Victoria has very substantial brown coal reserves in the Latrobe Valley.

AUSTRALIAN COAL RESERVES

(Source: Joint Coal Board, Eighteenth Annual Report, 1964-65)

State	Type of coal	Reserves (in million tons)	
		Measured and indicated	Inferred
New South Wales . . .	Bituminous	2,951	Very large(a)
Queensland	Bituminous-sub-bituminous	1,243	Very large(a)
Western Australia . . .	Sub-bituminous	282	1,597
South Australia	Sub-bituminous	49	..
Tasmania	Bituminous	Very small(b)	137(c)
Victoria	Bituminous	20	11
Victoria	Brown	54,700	43,000
South Australia	Lignite	630	..

(a) Inferred reserves are more than 10,000 million tons. (b) Measured reserves in Tasmania amount only to several thousand tons. (c) This figure includes both indicated and inferred reserves.

Crude petroleum

Continued exploration is slowly accumulating evidence that Australia may possess significant resources of petroleum and natural gas. The Surat Basin (Moonie) in south-east Queensland and the Barrow Island field are Australia's only commercial oil fields. Other possible commercial fields have been discovered, the most important being off-shore Victoria.

Natural gas

Several discoveries of natural gas deposits have been made in Queensland, Western Australia, Northern Territory, South Australia, and off-shore Victoria. In some areas reserves are extensive but commercial development will depend on the availability of markets and related capital costs.

History

The mineral industry has been an important factor in the growth of the Australian economy since the middle of the nineteenth century, when the discovery of gold attracted population to Australia and thus provided a valuable impetus to economic development. Over the years the mineral industry has been a substantial earner of foreign exchange, and has in general provided ample supplies of raw materials for Australia's developing manufacturing industries. In addition, earnings from mineral production have provided capital for the development of important manufacturing industries such as iron and steel production.

The history of mineral discovery and development in Australia, however, has not been one of continuous growth, and the growth of the industry may be divided into several episodes of activity which to some extent overlap. Probably the first mining in Australia was for coal, following discoveries in the northern and southern portions of the Sydney coal basin in 1796 and 1797. Metal mining first began in the 1840's in South Australia, where small deposits of silver-lead and copper were mined. In 1851 Edward Hargreaves discovered gold near Bathurst, New South Wales,

and shortly afterwards several other gold strikes were made in Victoria and Queensland. Thus began the first gold-rush in Australian history, and a rapid development of gold mining followed. Gold production for the ten years 1851-1860 was nearly 25 million ounces. However, by the mid-1860's gold mining had declined and the average annual gold production fell to less than 2 million ounces.

Subsequently a number of important discoveries of other minerals were made, and the development of these deposits revitalized the mining industry. These finds included the discoveries of copper, tin and lead-zinc from 1870 to the late 1890's (including Mount Bischoff in 1871, the Broken Hill Lode in 1883 and Mount Lyell in 1890) and the gold discoveries in Western Australia, beginning about 1884 (including Coolgardie 1892 and Kalgoorlie 1893). These discoveries were followed by large increases in the production of gold, silver-lead, copper, tin, and coal. Indeed, for a considerable period prior to 1900 Australia was the major gold producing country in the world. In addition, from 1890 to 1910 Australia was the leading tin producing country. This resurgence of the mineral industry, which began in the late 1880's, reached a peak in 1907 with a value of output being achieved which was not surpassed until 1937.

During the period 1908 to 1931 the industry underwent a period of decline, with a concomitant reduction in mineral exploration activity in Australia. This reduction has been attributed to the rapid expansion of the gold mining industry in South Africa about this time. British mining capital which had been channelled into Australia was diverted to another area of the world, and the limited amount of local capital was reserved mainly for agricultural and other less speculative activities. Despite this, a few very important mineral discoveries were made—the Mount Isa lead-zinc deposit in 1923 (and subsequently the copper deposit in 1929-31) and the Aberfoyle tin and wolfram deposits in 1926. During the period 1931-1941 the mineral industry experienced a period of recovery. Major production increases in gold and coal occurred for a short period. However, during the latter years of the second World War another period of decline occurred and gold production fell once again.

The immediate post-war period saw the beginning of a major era of expansion and diversification of the industry, which has continued, with little interruption, to the present. Since 1950 mining and quarrying output has doubled, both in money and real terms, while the output of manufacturing industries processing and treating minerals has expanded even more rapidly. The expansion of mineral processing in Australia (smelting and refining of metals, the processing of non-metallic minerals, etc.) is one of the most important features of the post-war expansion of the industry. A considerable part of the diversification and development which has occurred, or which is under way at present, can be attributed to the number of important mineral discoveries which have been made in Australia in the post-war period.

These discoveries include the following major finds:

Uranium—Mary Kathleen (Qld), Rum Jungle and South Alligator River (N.T.);

Bauxite—Weipa (Qld), Gove (N.T.), Darling Range (W.A.), Kalumburu (W.A.);

Iron ore—Pilbara (W.A.), Savage River (Tas.);

Manganese—Groote Eylandt (N.T.);

Oil and gas—Moonie, Roma area (Qld), Barrow Island, Gingin and Yardarino (W.A.), Mereneie (N.T.), Moomba and Gidgealpa (S.A.), off-shore Gippsland area (Vic.).

Developments which have occurred in the last few years have important implications for the future of the industry. Most attention at present is being focussed on the large iron ore deposits which have been discovered, the expansion of the aluminium industry, the revitalization of the coal mining industry, and the results of an increasing rate of exploration, particularly petroleum exploration. One notable feature of these recent developments is that the industry is becoming much more involved in export trade and its contribution to export earnings is expected to increase considerably in the next few years. Japan has emerged as the major market for Australia's minerals.

Administration

For all practical purposes all mineral rights in Australia are vested in the Crown. In the States, sovereign rights are held by the State Governments with respect to mineral resources within their boundaries. In the Territories of the Commonwealth these rights are vested in the Commonwealth Government. The Commonwealth Government is able also to influence overall development and production activity in the mineral industry by virtue of its statutory powers with respect to international trade, customs and excise, taxation and loan raisings. Certain specially formed bodies such as the Joint Coal Board and the Australian Atomic Energy Commission have been given administrative responsibility in defined areas.

Control of mining

Each State or Territory in the Commonwealth has its own mining Acts or Ordinances and regulations governing the prospecting for and working of mineral deposits. These Acts, etc. are similar in principle, but differ in detail. They all make provision for the following tenures.

- (i) The holding of a miner's right which gives the holder the right to prospect on Crown land, and to use the timber and water necessary for his operations. The miner's right does not give the power to remove or sell any mineral.
- (ii) Small mining leases, having a maximum area of about 100 acres, which necessitate the payment of rent and, in most cases, a royalty. There is usually no limit on the number of such leases which may be held by any one person, partnership, private or public company. In practice a restriction is imposed by the requirement that a lease must be continuously worked, or that work to a given value must be done annually, but exemption from the labour requirements may be obtained under certain circumstances. The exemption is given for limited periods only, and where the labour requirements are not met and exemption has not been granted, any person may apply for forfeiture of the lease in his favour. If the rental is not paid the lease is forfeited.

Provision is also made in the various Acts and Ordinances for prospecting areas, claims, etc. Such areas, claims, etc. are all quite limited in size and from the practical viewpoint are cheap forms of mining lease which carry limiting powers relating to the removal of minerals. A very large enterprise may take the course of acquiring mining titles by negotiation with the appropriate Minister for Mines and having the agreed terms and conditions embodied in an Act of the State Parliament. This method of acquisition has been used in several cases where the leasing company undertook an obligation (such as the erection of a large treatment works) in return for leases over large areas for a long period, and has become more common in recent years, particularly where very large scale capital intensive projects are involved (e.g. iron ore in Western Australia, coal and bauxite in Queensland, bauxite in the Northern Territory).

See page 79 of the chapter Land Tenure and Settlement for areas occupied under mining acts and ordinances.

Control of exploration

Following the introduction of large-scale modern prospecting methods (particularly air-borne prospecting), small prospecting areas were found to be unsuitable, and steps have been taken in the States and Territories to ensure the availability of large areas for prospecting by interested persons. Large areas may be made available in either of the following ways:

- (i) by the Minister of Mines withdrawing an area from the provisions of the Mining Act and giving an informal agreement that the prospector would have preference in applying for titles to leases within the area; or
- (ii) by provision within the Mining Acts or Ordinances for the issue of authorities to prospect over an area defined by a written agreement which also sets out provisions as to the amount of money to be spent, methods of prospecting, tenure of the agreement, etc.

The tenure of such areas is limited, usually to one or two years only, and, if renewed for a further period, is only over an area selected from the larger area as a result of work done during the life of the initial agreement. Neither form of prospecting concession gives the holder any rights over, or authorities to prospect on, land already held under a mining title within the agreed area. Unless specifically stated in an agreement, the discovery of minerals, whether inside or outside an area covered by an authority to prospect, gives the discoverer no legal rights except the right to apply for a mining lease over the area in which the discovery was made. Suitable prospects are converted to mining tenements by making application for lease under the appropriate mining Act.

The above discussion refers in general to the exploration for all types of mineral deposits in Australia. Additional information relating to the search for petroleum is given below.

Control of petroleum exploration

On-shore. In Australia, all petroleum on or below the land is, and shall be deemed always to have been, the property of the Crown. Consequently, full control of petroleum mining rights is vested in the Government or Administration of each State or Territory. Any company, syndicate, or individual proposing to join in the search for petroleum must first satisfy the Government concerned that the necessary financial resources are available to carry out exploration activity.

The names given to different types of exploration permits differ with variations in petroleum legislation from State to State, but there are essentially two basic forms of authorization for exploration: (a) Permit for surface survey; (b) licence for exploratory drilling.

In most States the minimum permit area is 1,000 square miles and up to a maximum area of 10,000 square miles in the Northern Territory. There is no limit in most States on the number of permits that may be held by one company, syndicate or individual. The term of the initial

permit varies between States from one year to five years, but in all cases there is provision for extensions with a maximum in most States of ten years. A bond must be lodged, and in some States rent is payable. All permits contain obligations to carry out certain exploration work with a general provision that survey must be started within three to six months after a permit is granted.

In most States the maximum licence area is 200 square miles with no limit to the number of licences that may be held. The term of the initial licence varies from State to State and ranges from two to five years. Extensions are permissible with a maximum term ranging in most States from six to ten years. A bond is required in most States, and some States also charge a fee. All States charge a rental ranging from 10c to \$2 a square mile per annum. The obligations of a licence require a company, syndicate or individual to carry out more detailed survey work than at the permit stage and may also require a minimum drilling programme.

If exploration is successful a lease may be granted which gives the right to produce petroleum. The maximum lease area is 100 square miles, and in most States there is no limit to the number of leases that may be held. When a lease is granted the remaining portion of the licence area in which a lease is situated must in most cases be surrendered to the Crown, but surrender clauses vary from State to State.

The initial term of a lease in most cases is twenty-one years, and the lease may be renewed for a similar period. Also, one of the general obligations of a lease is that drilling for production must be commenced within six months. In some States the appropriate Minister has jurisdiction over the processing and marketing of the oil.

Legislation in most States requires the payment of rent at the rate of \$20 a square mile per annum, but this is deductible from any royalties payable on commercial production. All States and Territories have provisions requiring the operating company to guard against wasteful and dangerous practices and make provision for field development in accordance with sound oilfield practice.

Off-shore. More than three years ago Federal and State Ministers and Attorneys-General began a series of conferences to determine the extent of their respective jurisdictions over rights to prospect for petroleum in Australian off-shore areas. In November 1965 it was announced that agreement had been reached between the Federal and State Governments on a system of joint legislation to control and safeguard the exploration for, and the exploitation of, the petroleum resources on the territorial sea-bed and on the outer continental shelf. The continental shelf is described as off-shore territory not exceeding 200 metres in depth.

Following the November 1965 announcement representations were made by the off-shore exploration companies seeking modifications of some aspects of the scheme. These representations were considered by Federal and State Ministers, and on 30 June 1966 it was announced that the Ministers had agreed that some modifications would be made to the original scheme as a result of the representations made by exploration companies. Under the modified draft legislation the State Governments administer the legislation and collect all rents and fees. Granting of tenements is subject to approval by the Federal Government as the authority responsible for external affairs, defence, health, customs, and navigation. Royalties are divided on a 50-50 basis between the Federal Government and the adjacent State. The draft off-shore legislation provides for a two-stage system of granting authorities to explore and produce. A permit covers all stages of exploration, including drilling. Rent is payable at the rate of 20c a square mile per annum, but not exceeding \$2,000 for any permit area.

A licence (equivalent to a lease on land) for production is issued for twenty-one years, with the licensee having the right of extensions for a further twenty-one years. Further extensions may be granted. Royalty is ten per cent of value of production at the well-head for the first twenty-one years. Royalty rate for the whole of the second twenty-one year period will be fixed by the Parliaments at or before the time of granting a renewal, and in the absence of Parliamentary action to fix a new rate, the ten per cent will continue to apply for the period of the licence.

The draft legislation provides for the establishment over off-shore areas of a graticular system of block areas. The size of each graticular block is five minutes of arc of latitude by five minutes of arc of longitude. This results in graticular blocks ranging in area from a little over thirty square miles in northern Australia to approximately twenty-five square miles in southern Australia. Reduction in size is due to the fact that minutes of latitude decrease in length between the Equator and the South Pole. The maximum permit area is 400 blocks (approximately 10,000 square miles). There will be no statutory limitation on the number of permits which may be granted to any individual company. Permits will be issued for an initial period of six years with rights of renewal for further successive periods each of five years subject to satisfactory compliance with the conditions of the permit and to the permittee's surrendering half of the effective permit area at the end of each period. Furthermore, the draft legislation will include discretionary powers for the Minister to modify the requirement for compulsory reduction if this would result in a permit area being reduced below sixteen blocks (i.e. approximately 400 square miles).

Following a discovery of petroleum within a permit area the permit holder will be asked to nominate a block which will then become the centre of a group of nine blocks, called a location, from which the permit holder may be granted a licence over five blocks (an area of approximately 125 square miles) with four blocks reverting to the Crown. Where locations consist of less than nine blocks they will be split evenly between the permittee and the Crown if the number of blocks within the location is even, and the odd block will be held by the permittee if the number is uneven. The permit holder has at least two years, which may be extended to four years, in which to make his selection. Graticular blocks not selected by the permit holder will be excised from the permit area and may be disposed of by State or Territories by tender. The original permit holder will have the first option to purchase any such graticular blocks at the top price offered. Existing tenements which have been previously issued by States or Territories will be honoured where possible, and the holder may have the option of deciding whether they wish to be covered by the new legislation.

See page 80 of the chapter Land Tenure and Settlement for particulars of areas held under authorities to prospect or explore for petroleum.

Mineral royalties

The collection by governments of royalties for the production of minerals within their area of authority is an internationally accepted practice. In Australia the responsibility for mineral royalties is largely a State concern, and all States except Tasmania currently collect some form of mineral royalty payments. In the past most States have relied on an established system of standard rates which were uniform for all producers of any particular mineral in the State concerned. These charges were either a fixed monetary amount per ton (e.g. 5c per ton on gypsum mined in New South Wales) or an *ad valorem* royalty (e.g. 1.5 per cent of gross value of gold produced in New South Wales).

In recent years there has been an important basic change in the system of establishing royalty commitments, and it is now quite common for State Governments to negotiate special royalty rates with companies which are seeking mineral leases for large scale developments. These royalty rates may vary depending on whether production is for export or for domestic processing. The rates for a particular mineral may also vary between producers. Important examples of this type of royalty agreement are the iron ore development agreements in Western Australia and coal development agreements in Queensland. Mineral royalties received by State Governments in recent years are shown in the table below.

MINERAL ROYALTY RECEIPTS
STATES AND NORTHERN TERRITORY, 1961-62 TO 1964-65
(£)

State or Territory	1961-62	1962-63	1963-64	1964-65
New South Wales	2,901,734	1,633,640	5,090,622	19,946,772
Victoria	(a) 76,732	(a) 85,004	(a) 94,072	(b) 39,996
Queensland	727,688	486,938	642,560	1,201,264
South Australia	789,310	756,156	895,540	962,668
Western Australia	239,454	248,646	243,182	291,354
Tasmania	(c)	(c)	(c)	(c)
Northern Territory	65,960	61,996	68,682	80,892

(a) Includes, in addition to mineral royalty receipts, mine-tailing licences and rents. (b) Mineral royalty receipts only. (c) No mineral royalties are collected in Tasmania.

Control of exports

The Commonwealth Government maintains export controls over certain minerals and metals. These controls are enforced by means of Customs (Prohibited Exports) Regulations as amended from time to time by Statutory Rules. The Commonwealth authorities having jurisdiction over mineral and metal exports, together with the relevant products, are listed below. A clearance to export is needed in each case.

Department of National Development—iron ores, beneficiated iron ores and iron concentrates; mineral sands in all forms (including concentrates) containing zircon, rutile or ilmenite; lithium ores and concentrates; manganese ores; beryllium ores and concentrates.

Department of Primary Industry—phosphate rock, phosphate and superphosphate, and fertilizers containing phosphate or superphosphate.

Australian Atomic Energy Commission—uranium and thorium minerals including monazite; uranium, thorium, beryllium, hafnium and lithium metals, compounds and alloys; hafnium-free zirconium metals, alloys and compounds; very pure calcium metal; nickel metal in certain forms; minerals, raw and treated (including residues and tailings), containing more than 0.05 per cent of uranium or thorium, singly or together.

In addition to these controls which are, in general, of fairly long standing, the Commonwealth Government has imposed export controls on copper and copper-bearing materials in recent years. These controls have been administered by the Department of National Development.

In November 1964, as a result of the closure of the copper smelter at Mount Isa, an emergency ban was imposed on the export of copper and copper scrap. The ban did not include copper concentrates or fabricated copper products. These restrictions were lifted as from 1 September 1965.

Subsequently a ban on the export of copper scrap and copper alloy scrap was announced on 20 December 1965. As from 1 May 1966 the ban was extended to include the following materials from which copper may be obtained—residues, speiss, slag, dross, scale, sweepings, ash, sludge, slime, dust, and wastes. In addition, it was announced that export permits would not be issued for copper and copper alloy cakes, billets and similar shapes produced from scrap.

Joint Coal Board

The Joint Coal Board was established in 1946 under joint legislation of the Commonwealth and of the State of New South Wales to carry out special administrative functions in regard to the New South Wales black coal mining industry. A summary of these functions is given below.

- (i) To ensure that coal is produced in the State of New South Wales in such quantities and with such regularity as will meet requirements throughout Australia and in trade with other countries;
- (ii) To ensure that the coal resources of the State are conserved, developed, worked, and used to the best advantage in the public interest;
- (iii) To ensure that coal produced in the State is distributed and used in such manner, quantities, classes and grades, and at such prices as are calculated best to serve the public interest and secure the economical use of coal and the maintenance of essential services and industrial activities; and
- (iv) To promote the welfare of workers engaged in the coal industry in the State.

Australian Atomic Energy Commission

During 1953 Commonwealth legislation was enacted to set up an Atomic Energy Commission which is responsible, in an overall sense, for the production and utilization of uranium in Australia. This Act, the *Atomic Energy Act 1953*, superseded the *Atomic Energy (Control of Materials) Act 1946*, but retains a provision of that Act which provides for the control of substances which could be used for production or use of atomic energy.

The functions of the Commission fall under two main headings. Firstly, it is responsible for undertaking and encouraging the search for and mining of uranium and is empowered to co-operate with the appropriate authorities of the States in connection with these and related matters. Secondly, it is authorized to develop the practical uses of atomic energy by constructing and operating plant for this purpose, carrying out research and generally fostering the advancement of atomic energy technology. The Commission functions under the direction of the Minister for National Development.

Government assistance

The Commonwealth Government and the various State Governments provide assistance to the mineral industry in a variety of ways. The main forms of assistance are discussed below.

Commonwealth Government assistance

Assistance provided by the Commonwealth Government takes the form of income taxation concessions, subsidies, bounties, and technical assistance mainly through the work of the Bureau of Mineral Resources and the Commonwealth Scientific and Industrial Research Organization. A table showing direct Commonwealth Government payments to sectors of the mineral industry is given on page 1023.

Income taxation concessions. One-fifth of the net income derived from mining for prescribed minerals in Australia or the Territory of Papua and New Guinea is exempt from tax. The metals or minerals to which this concession applies are as follows: asbestos, bauxite, chromite, emery, fluorspar, graphite, ilmenite, kyanite, magnesite, manganese oxides, mica, monazite, pyrite,

quartz crystals (piezo-electric quality), radio-active ores, rutile, sillimanite, vermiculite, and zircon; and ores of antimony, arsenic, beryllium, bismuth, cobalt, columbium, copper, lithium, mercury, molybdenum, nickel, osmiridium, platinum, selenium, strontium, tantalum, tellurium, tin, tungsten, and vanadium.

Income derived from mining principally for gold in Australia or the Territory of Papua and New Guinea is exempt from tax. The exemption is also available in respect of income derived from mining principally for gold and copper if the value of the gold obtained is not less than 40 per cent of the value of total output.

Income attributable to uranium obtained from working a mining property in Australia or the Territory of Papua and New Guinea, or from the treatment of ore in Australia or the Territory of Papua and New Guinea, is exempt from tax for residents of Australia and the Territory of Papua and New Guinea. The exemption is, however, conditional upon the uranium recovered being owned by the Commonwealth or disposed of to a person approved by the Commonwealth.

Dividends paid wholly and exclusively out of exempt mining income are also exempt from tax.

Valuable assistance has been given in the form of certain taxation concessions to encourage the search for petroleum. Investors are permitted, for tax purposes, to deduct from their assessable income all sums paid for shares issued by petroleum exploration companies in respect of application, allotment, and call moneys. These deductions are allowable only if a petroleum exploration company elects to forgo an equivalent amount when, in the event of commercial production, capital expenditure is claimed as a deduction for tax purposes. Most Australian petroleum exploration companies have elected to pass on this benefit to their shareholders. In 1963, amendments aimed at providing increased incentive to petroleum exploration companies extended the range of deductible items to include expenditure on the purchase of rights to prospect, preliminary expenses incurred in the operation of exploration companies, and several other fringe items. The effect of these concessions is to exempt a company from payment of income tax on profits derived from the sale of petroleum until such time as the capital expended in developing the production has been recouped.

Petroleum search subsidy. In 1957 the Commonwealth Government introduced the *Petroleum Search Subsidy Act 1957* whereby stratigraphic drilling operations were subsidized to the extent of 50 per cent of cost. The *Petroleum Search Subsidy Act 1959* widened the scope of operations for which subsidy was offered to include all types of geophysical surveys and off-structure drilling operations. Another amendment in 1961 further widened the scope of the 1959 Act to provide subsidy for test drilling and detailed structure drilling operations. It also provided for the calculation of drilling subsidies on a footage basis as an alternative to the total cost basis. A sum of \$10 million was allocated to the petroleum search subsidy scheme for 1962-63 compared with an allocation of \$5.4 million in the previous year. Applications for subsidy increased to such an extent, however, that in spite of the increased allocation, the maximum rate of subsidy was reduced from 50 per cent of the allowable cost of approved operations to 30 per cent.

The *Petroleum Search Subsidy Act 1959-1961* was amended in June 1964 to extend Commonwealth subsidy for a further three years. The *Petroleum Search Subsidy Act 1959-1964* provides subsidy for approved geophysical surveys and test and stratigraphic drilling operations; bore-hole surveys, off-structure and detailed structure drilling are no longer eligible. As in the previous Act, an applicant may elect to receive subsidy for both types of drilling operations on either a footage basis or a total cost basis. In addition, the production testing of any well approved for subsidy is also eligible for additional subsidy. Under the Act the Minister may vary the rates of subsidy for prescribed operations, but they may not exceed one-half the total cost. The present rates of subsidy for approved operations on a cost basis are 30 per cent for test-drilling and 40 per cent for stratigraphic drilling. The rate for all types of geophysical operations is 30 per cent. The 1959-1964 Act also specifies that exploration for petroleum on the Australian continental shelf is eligible for subsidy, retrospective to 1959. The Federal budget for 1965-66 contained an appropriation of \$11.4 million for subsidies under the Act.

On 28 October 1964 the Minister announced that action was necessary to limit the burden of the Commonwealth subsidy scheme on the Australian taxpayer in view of the many recent encouraging discoveries of oil and gas which were now providing the incentive to further exploration. To this end the Minister announced that operations within certain defined areas around discovery wells and fields would not be approved for subsidy. For the present, projects in the following areas would not be eligible for subsidy: twenty miles from a gas well; thirty miles from an oil well; forty miles from a gas field; fifty miles from an oil field. Specified areas excluded from subsidy payments are periodically announced by the Minister.

Pricing of Australian crude oil. The Commonwealth Government, subsequent to a Tariff Board Inquiry during 1965, established a basic price for Australian crude oil of \$US 2.48 a barrel at the nearest refining centre, plus a differential for the quality of the oil produced, plus an exploration incentive of 75 U.S. cents a barrel. In the case of Moonicie crude oil, the quality differential is 27 U.S. cents a barrel, and the price for Moonicie crude oil delivered Brisbane is \$US 3.50.

In order to ensure that local crude oil is used in Australian refineries, the Government will impose penal import duties of 0.8c a gallon on crude oil and 2.4c a gallon on motor spirit to be paid by those companies which do not take their share of local crude oil. A more detailed discussion on the pricing of Australian crude oil is included on page 1050.

Assistance to the gold-mining industry. Assistance to the gold-mining industry by subsidy was introduced at a time of rising costs in the industry and fixed official world price for gold. Because many producers were faced with the likelihood of closing down, the Government decided to subsidize marginal producers in Australia and the Territories of Papua and New Guinea. Under the *Gold-Mining Industry Assistance Act 1954* a producer, the value of whose gold output exceeded 50 per cent of the total value of his mine output, was eligible for assistance, subject to certain conditions, on the production of gold from 1 July 1954. The assistance scheme has been reviewed on a number of occasions since the Act was originally passed, and some liberalizations have been approved, including increases in the rates of subsidy payable authorized in amendments enacted on 22 October 1957, 22 May 1959 and 2 June 1965.

The rate of subsidy payable under the original Act was increased under amendments enacted on 22 October 1957 and 22 May 1959. The Act was again amended on 2 June 1965. Under the Act as it now stands the subsidy payable to small producers whose annual deliveries do not exceed 500 fine oz. is \$6 per fine oz., irrespective of cost of production. For large producers, subject to certain provisions, the rate of subsidy payable is an amount equal to three-quarters of the excess of the average cost of production over \$27 per fine oz., with a maximum amount of subsidy of \$8 per fine oz. A producer whose deliveries during the year exceed 500 fine oz. may elect to be treated as a small producer. In this case the subsidy rate payable per fine oz. on total deliveries is \$6 reduced by 1c for each fine oz. by which deliveries exceed 500 fine oz. The benefit under this provision terminates when deliveries in a year reach 1,100 fine oz. Where a producer receives an amount in excess of the official price of \$31.25 per fine oz. as a result of sales on overseas premium markets or otherwise, the subsidy payable is reduced by the amount of the excess. Prior to 1 July 1965 subsidy payable to large producers was subject also to a limiting provision that the annual net profit of a producer was not, with the addition of the subsidy, to exceed 10 per cent of the capital used in the production and sale of gold. This limitation has now been removed. The latest amendments also provided for the removal of two other restrictive provisions. A large producer's entitlement to subsidy is no longer subject to reduction if the amount of expenditure on development included in costs exceeds a certain amount, or if the grade of ore being mined falls below a certain level. On the other hand, the Act now provides that subsidy may be adjusted if it is considered that operations are not conducted in accordance with good mining practice. With effect from 1 July 1965 a large producer is able to include in his costs for subsidy purposes one-half of net costs incurred in approved exploratory diamond drilling elsewhere than on his mining property. Payments under the amended Act are to apply to production until 30 June 1970. Payments under the Act commenced in March 1955, and the amounts paid to gold producers in the various States and Territories of Australia in each of the years 1960 to 1965 are shown in the table on page 1023.

The purpose of the *Gold Mines Development Assistance Act 1962* was to provide assistance to gold producers in Australia and the Territories of Papua and New Guinea not receiving subsidy under the *Gold-Mining Industry Assistance Act 1954-1962*, in order to increase the rate of their development work and so to add to their proved reserves of gold-bearing minerals. In recent years these reserves had declined to the extent that the long-term prospects of the industry were jeopardized. The Act, which applied to 1962-63 and the next two financial years, provided that a development allowance was payable to a mine approved for the purposes of the scheme equal to the amount by which its allowable expenditure on development in a year, as defined in the Act, exceeded a defined base amount which would normally be the average annual amount spent by the mine on development during the three years preceding 1962-63. The payment of allowance was also subject to a number of other conditions and limits provided for in the Act. With the liberalization of the *Gold-Mining Industry Assistance Act* from 1 July 1965, the Commonwealth Government decided not to extend the development assistance legislation which, accordingly, lapsed on 30 June 1965.

Assistance to the copper mining industry. After a Tariff Board investigation, assistance was accorded to the industry in 1958, partly by import duty and partly by bounty. The assistance was continued until 31 December 1965. However, because of the unsettled conditions in the industry at this time, it was decided to defer a Tariff Board Inquiry and to continue the present bounty assistance until 31 December 1966 unless an earlier date of cessation is proclaimed. Under the *Copper Bounty Act 1958-1965* bounty is payable, subject to specified conditions, on refined copper sold for use in Australia. The rate of bounty is \$70 per ton when the overseas price, as determined by the Minister for Customs and Excise, is \$580 (£Stg232) or less. When the overseas price rises above \$580, the bounty falls by the same extent, so that no bounty is payable when the overseas price is \$650 (£Stg260) or more. A duty is imposed on imports of copper when the overseas price falls below \$580 a ton, to the extent of \$1 for each \$1 that the price falls below \$580. Including freight and other charges, the landed cost of imported copper is thus expected not to fall below \$610 a ton.

Assistance to producers of sulphuric acid and iron pyrites. Following recommendations of the Tariff Board, the Sulphuric Acid Bounty Act was extended for a period of five years from 1 July 1960. Arising from these same recommendations, the *Pyrites Bounty Act* 1960 was enacted on 15 December 1960 to be operative for a period of four and a half years from 1 January 1961. The Acts provide for bounties to be paid, subject to specified conditions, on sulphuric acid produced from prescribed materials of Australian origin and to producers of iron pyrites. In June 1965 it was announced that assistance under these Acts would continue until 31 December 1965. Both of these Acts have now been extended by legislation to 30 June 1969.

Payments to producers of phosphate fertilizers. The *Phosphate Fertilizers Bounty Act* 1963 provides for a bounty to be paid on superphosphate and ammoniated phosphate fertilizers manufactured and sold for use in Australia on and after 14 August 1963. The bounty is based on the fertilizer value of superphosphate as measured by its soluble content of phosphorus pentoxide. A standard grade of superphosphate containing 20 per cent, plus or minus 0.5 per cent, soluble content of phosphorus pentoxide, qualifies for the full bounty of \$6 per ton. When the phosphorus pentoxide content of the superphosphate is less than 19.5 per cent or above 20.5 per cent, bounty is payable at the rate of \$30 for each ton of contained phosphorus pentoxide. Bounty in respect of ammonium phosphate is payable at the rate of \$30 for each ton of the phosphorus pentoxide content of the ammonium phosphate. In addition to standard grade superphosphate, 'double' and 'triple' superphosphate, containing 40 per cent and 50 per cent phosphorus pentoxide respectively, are produced in Australia, and bounty on these products is payable at the rate of \$12 per ton and \$15 per ton respectively. Payments under this Act are designed to assist consumers of superphosphate (primary producers) rather than the manufacturers of superphosphate.

COMMONWEALTH GOVERNMENT PAYMENTS TO THE MINERAL INDUSTRY AUSTRALIA, 1961 TO 1965

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Period	Petroleum exploration (a)	Gold mining (b)	Copper mining (c)	Pyrites mining (d)	Sulphuric acid production (e)	Phosphate fertilizer production (f)
1961 .	2,695,800	1,399,000	1,238,119	584,060	2,706,498	..
1962 .	5,930,752	1,351,394	1,372,868	686,680	1,865,314	..
1963 .	10,519,208	1,614,600	1,297,704	960,334	2,590,248	1,908,252
1964 .	9,121,910	1,382,124	1,065,782	1,320,668	2,046,542	22,772,978
1965 .	10,412,842	1,984,966	5,262	1,113,964	2,138,914	22,604,562

(a) *Petroleum Search Subsidy Act* 1959-1964. (b) *Gold-Mining Industry Assistance Act* 1954-1965 and *Gold Mines Development Assistance Act* 1962 (expired 30 June 1965). (c) *Copper Bounty Act* 1958-1965. (d) *Pyrites Bounty Act* 1960-1965. (e) *Sulphuric Acid Bounty Act* 1954-1965. (f) *Phosphate Fertilizers Bounty Act* 1963.

Bureau of Mineral Resources, Geology and Geophysics. The functions of the Bureau of Mineral Resources, Geology and Geophysics are to explore, investigate and encourage the development of mineral deposits; to survey and assess the mineral resources of the Commonwealth and its Territories and to initiate and investigate proposals for their development; to interpret the results of completed surveys and recommend ways of remedying or meeting mineral deficiencies and to advise on all aspects of the mineral economy of Australia, including the best utilization of mineral resources in the national interest; to carry out geological and geophysical surveys and investigations and advise on all aspects of applied geology and geophysics.

The Bureau comprises five branches under the Director: Operations, Mineral Resources, Geological, Geophysical, and Petroleum Exploration. The Operations Branch consists of three sections, Planning and Co-ordination, Publications and Information, and Administrative. It carries out central office functions, including planning and control of programme, assessment of results, co-ordination of activities, liaison, and distribution of information. The Mineral Resources Branch comprises the sections Mineral Economics, Mining Engineering and Petroleum Technology and is concerned largely with those aspects of the Bureau's work which involve studies of the mineral industry as a whole, and the preparation of advice and reviews for the Government, industry and the public. The Geological and Geophysical Branches are responsible for the principal field activities of the Bureau, and the operation of observatories; while the Petroleum Exploration Branch is concerned with the administration of the Petroleum Search Subsidy Act and is also engaged in the assessment of sedimentary basins in Australia and its Territories. The establishment of the Bureau is 556 officers, of whom 280 are professional. The budget for the financial year 1965-66 was \$16.8 million, of which \$11.4 million was provided for payment under the Petroleum Search Subsidy Act.

The Bureau maintains in Canberra, Melbourne and Darwin laboratories which are engaged on geochemical, geochronological and petroleum technological studies and basic research into the design and testing of geophysical equipment. The Bureau also maintains a vulcanological observatory at Rabaul and geophysical observatories at Melbourne, Toolangi, Mundaring, Darwin, Port Moresby, Mawson and Wilkes (Antarctica), and Macquarie Island. The geophysical observatories are engaged in magnetic, ionospheric and seismic investigations and are base stations for field operations.

Commonwealth Scientific and Industrial Research Organization. The activities of this body with respect to the mineral industry are discussed on page 1025 under Research.

State Government assistance

In addition to free assays and determinations of rocks and minerals carried out for prospectors by the Mines Department of the States and Territories, technical officers of these departments provide advice to the mining and allied industries where required, carry out field examinations of mining prospects, advise on exploration and development, select sites for water supply, and in general give a free technical service to the mining industry.

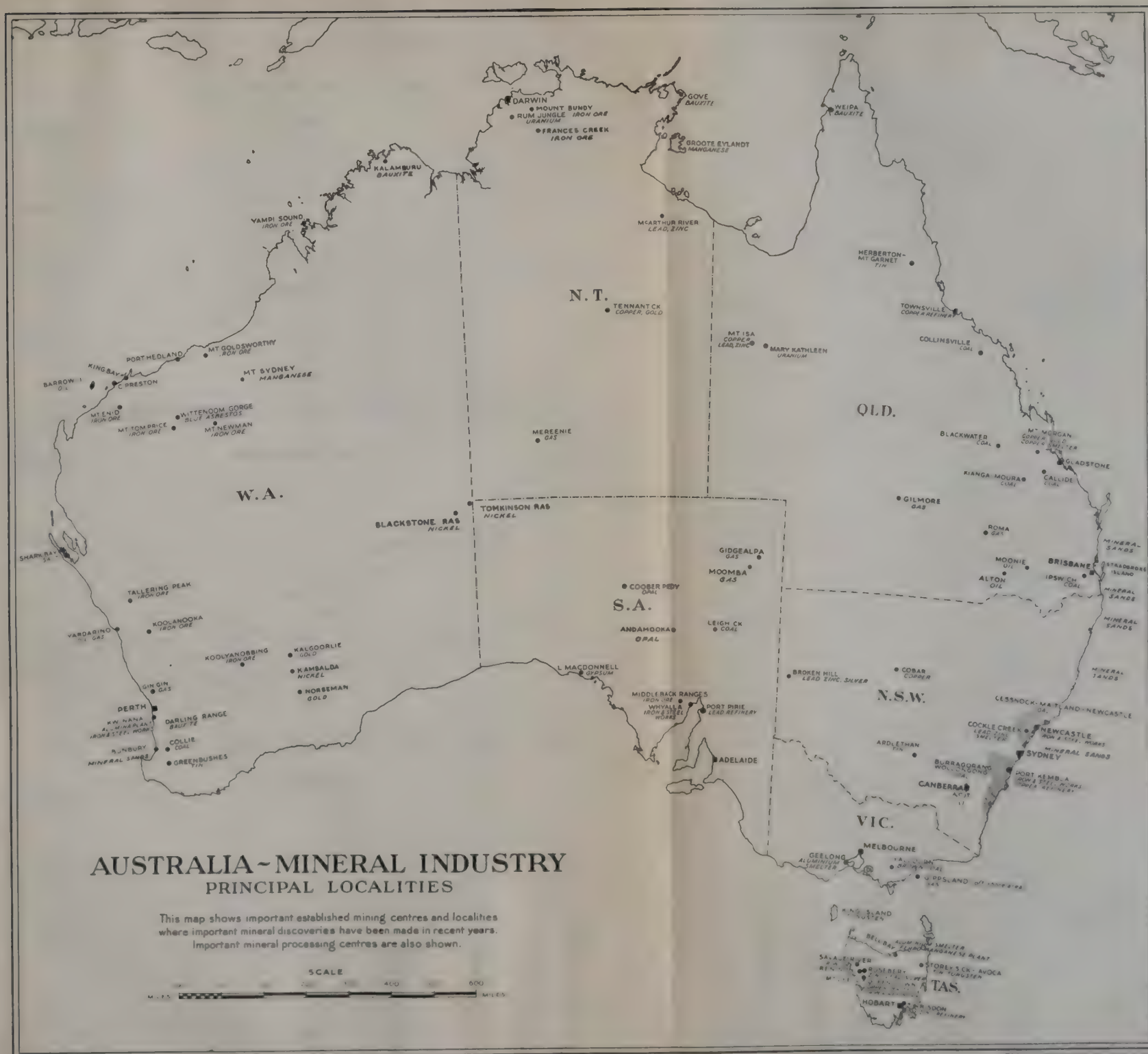
New South Wales. State aid to assist metalliferous mining may consist of grants to assist the the prospecting and/or mining for gold and minerals, and for the purchase, removal and installation of mining plant or equipment. A quantity of mechanical equipment is also available in several localities for hire at reasonable rentals to prospectors and small mine operators, and District Inspectors have geiger counters and scheelite detectors which are loaned to approved persons. In the year 1964-65 \$400,000 was made available for exploration work carried out by the Department and to give financial assistance to exploration groups and prospectors.

Victoria. Loans may be granted to assist prospecting and development or the purchase of machinery for gold mining. The Mines Department has stamp batteries in different parts of the State to crush ore for prospectors at nominal rates. Small mining companies may avail themselves of these facilities. Drilling with diamond, rotary and percussion drills is carried out by the Mines Department for mining companies and for general mineral exploration. A survey of the State's underground water resources is in progress, in conjunction with the development of town water supplies from underground sources.

Queensland. Various forms of assistance to mining are made available by the Queensland Department of Mines. Grants are made from the Consolidated Revenue Fund for use on construction and maintenance of roads in mining areas. Advances are made from the Gold Mining Encouragement Fund for mining development work. This assistance is restricted to gold mines, and advances are repayable from proceeds of the mine, if any. From the Assistance to Metalliferous Mining Fund, plant such as jackhammers, compressors and pumps is purchased and maintained. Such plant is made available on hire, the rental payments being credited back to the fund. Prospecting assistance is made available in approved cases, the rates being \$5 a week for a single man and \$7 a week for a married man with dependants. This is not repayable. From the Advances to Mining Fund assistance by way of subsidy is advanced for mine development. This is repayable from proceeds of the mine. The department also maintains a treatment works for tin ores, etc. at Irvinebank, an assay office at Cloncurry and diamond-drilling plants in several parts of the State. The Venus State battery at Charters Towers is available for the treatment of gold-bearing ores.

South Australia. The Department of Mines provides the following services and facilities to the mineral industry: (i) hire of boring plant and mining equipment, boring and testing of mineral deposits, financial subsidies in approved cases for prospecting and mining development, development of sub-surface water supplies for farming, pastoral, irrigation and mining purposes, and purchase of basic metal ores from prospectors; (ii) geological examination of mineral deposits, water supply, dam foundation and drainage problems, guidance on mining legislation, and publication and issue of geological bulletins and maps. It also provides, through the Australian Mineral Development Laboratories, chemical and metallurgical and analytical and assay investigation, testing and treatment of ores and minerals, and petrographic, mineragraphic and radiometric determinations. Pilot scale metallurgical and chemical treatment plants are maintained and operated for the development of mineral extraction processes.

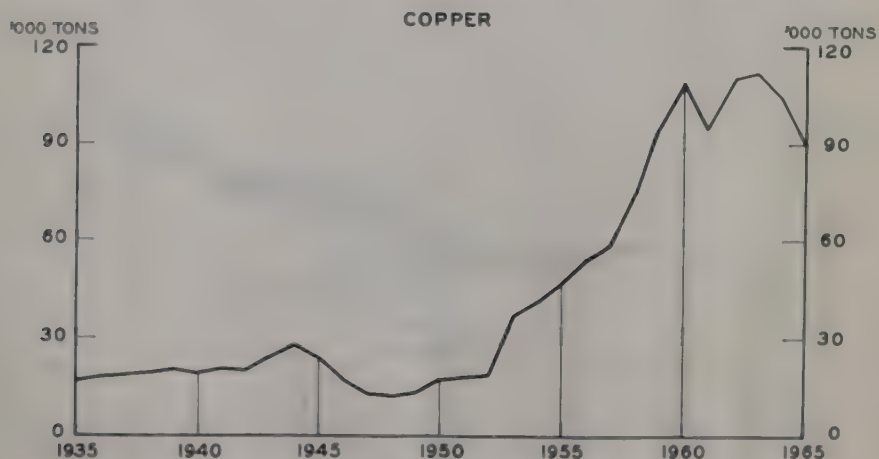
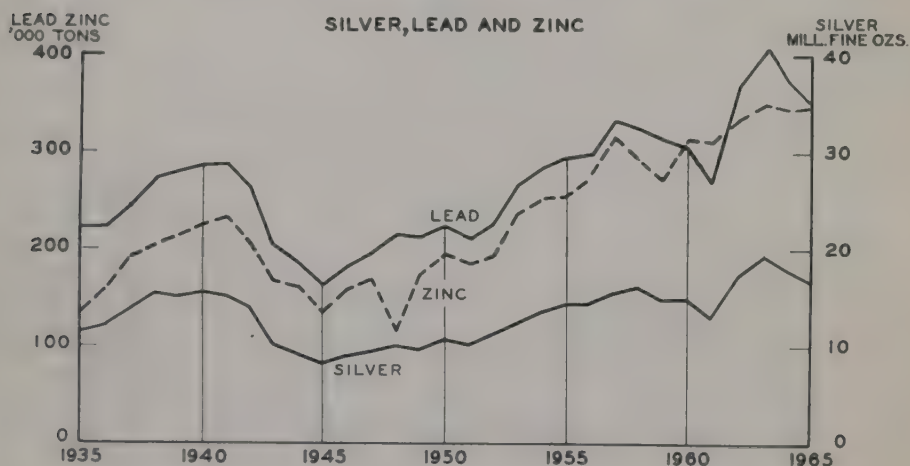
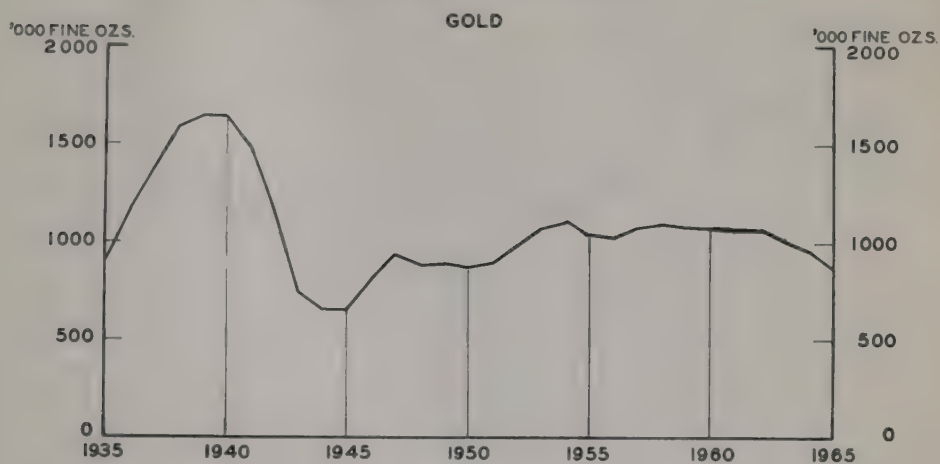
Western Australia. Prospectors receive assistance of either \$12 or \$14 a week according to the prospecting locality. North of the 26th parallel and within a defined area south of this lying largely outside the agricultural areas assistance is given to the extent of \$14 a week. In the remainder of the State prospectors receive \$12 a week. Provision is also made for the supply of some tools required for prospecting. There are twenty State batteries operating intermittently throughout the goldfields for the treatment of ore from prospectors and small mine-owners at a nominal charge. A cartage subsidy is also granted to such operators sending ore to State batteries for treatment. Provision is made for loans to mine-owners who require assistance to develop mines. The Government also has a drilling scheme, financing mine-owners on a \$1 for \$1 basis.



MINE PRODUCTION OF PRINCIPAL METALS

(METALLIC CONTENT OF MINERALS)

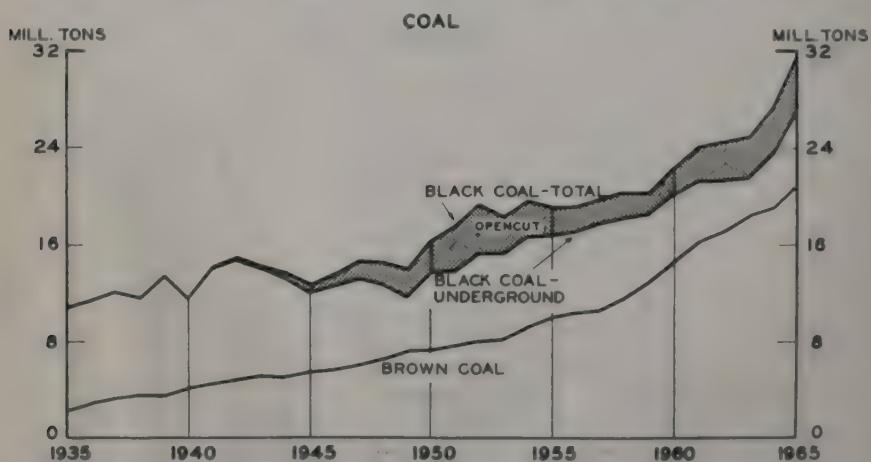
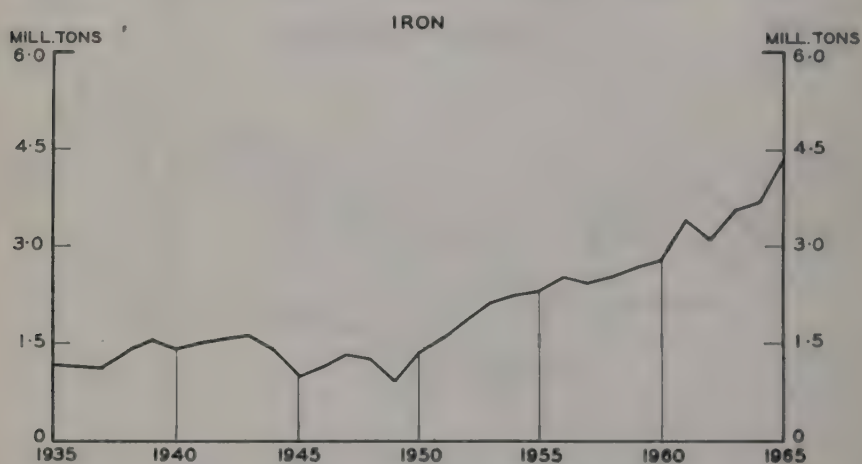
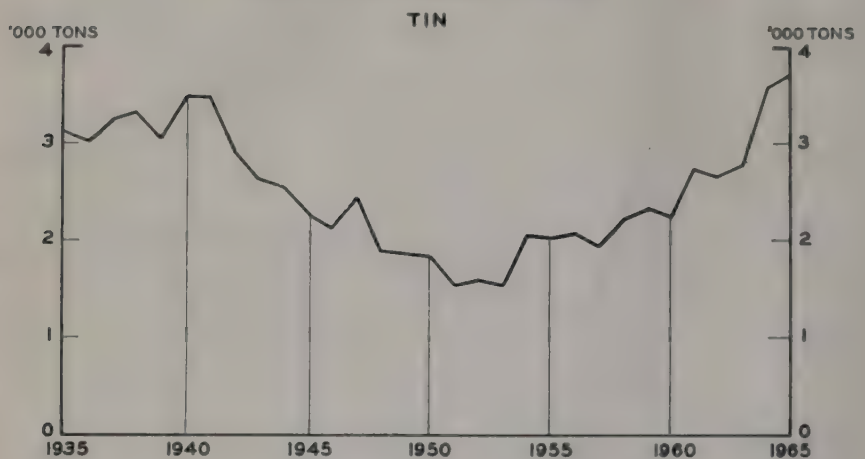
AUSTRALIA, 1935 TO 1965



MINE PRODUCTION OF PRINCIPAL METALS AND PRODUCTION OF COAL

(METALLIC CONTENT OF MINERALS)

AUSTRALIA, 1935 TO 1965





AUSTRALIA - PAPUA & NEW GUINEA
SEDIMENTARY BASINS
AND LOCATIONS OF
OIL & GAS DISCOVERIES

REFERENCE

- Main Basins
- Subdivisions of Basins
- Basins under Main Basins
- - - Other Basins and Provinces
- Boundaries indicated by geographical boundaries
- Mainly non-prospective for petroleum

DMD PEG July 1965

Tasmania. The Department of Mines provides financial assistance to mining lessees for the purchase of plant and machinery, for sinking, repairing or de-watering of shafts, for constructions of dams and water races, for testing and proving a deposit of any mining product, for developmental work, and for diamond and other types of drilling. The Department has available for hire percussion and diamond drills for exploration, as well as a complete plant for small shaft sinking and tunnelling. Other assistance is rendered to the industry in the form of geological and engineering advice, through ore-dressing research into metallurgical recoveries, and the selection and design of treatment plant. In consequence of a serious fall in world tungsten prices the *King Island Scheelite Agreement Act* 1963 (No. 1) was passed. This Act permitted the Tasmanian Government to provide financial assistance until the end of August 1963 so that production of scheelite on King Island could be continued. A second Act (*King Island Scheelite Agreement Act* 1963 (No. 2)) gave authority for advances in the period to 31 May 1964. In October 1964 the price of tungsten on world markets moved above the level at which repayments under the subsidy agreement apply, and repayments to the Tasmanian Government, in accordance with a formula related to monthly production, were commenced by the operating company. Repayments, in respect of 1965 production, of advances under the King Island Scheelite Agreement Acts were \$302,518.

Northern Territory. To encourage the development of the mining industry the Northern Territory Administration operates two batteries for the treatment of miners' ores. The batteries are at Tennant Creek and at Mount Wells near Burrundie. The Tennant Creek battery is currently cyaniding the gold in accumulated tailings while the Mount Wells battery is crushing parcels of gold ores and tin ores. The crushing charges are subsidized by government grants. In addition, the Administration provides cartage subsidies and financial advances to encourage miners to carry out developmental work. Assistance is also given to the industry by drilling encouraging prospects. Roads and water supply services are provided and maintained for mines under active development throughout the Territory.

Research

General

Research investigations into problems of mining, ore-dressing and metallurgy are conducted by Governmental bodies, by universities, by private enterprise, and by combined efforts of these bodies. A summary of the functions of these bodies follows.

Commonwealth Scientific and Industrial Research Organization

Research for the mineral industry by the Commonwealth Scientific and Industrial Research Organization is concentrated mainly in the Divisions of Applied Mineralogy and Mineral Chemistry and in the Mineragraphic Investigations and Ore-Dressing Investigations Sections. All of these groups have their laboratories in Melbourne. In addition, the Division of Applied Mineralogy has a small laboratory in Perth.

The research programme of the Division of Applied Mineralogy is concerned mainly with the nature and the industrial application of mineral products, especially the non-metallics. A major part of the Division's programme is devoted to research on production and utilization of cement. Studies of industrial refractories and engineering ceramics are also being made. The Division of Mineral Chemistry is carrying out research on the chemical basis for the better utilization and processing of Australian minerals. Particular attention is being paid to studies of minerals that are abundant in Australia and have considerable potential for increased exploitation. A major aim of the Division of Coal Research is to promote the effective use of coal through research into the processes of combustion, gasification and carbonization. This work ranges from basic studies of the kinetics of the processes involved in combustion and gasification to studies of problems that have arisen in operating boilers in large power stations. Examination and recording of the characteristics of Australian coals from all known deposits are another important activity of the Division. In the Division of Chemical Engineering projects of particular interest to the mineral industry include studies of mineral grinding, fluidized bed techniques and high-pressure reactions in carbon and coal gasification. The Mineragraphic Investigations laboratory has become a general reference point in C.S.I.R.O. for examination of minerals and for advice on problems concerning their nature and origin. The Ore Dressing Investigations laboratory, which is under the joint control of C.S.I.R.O. and the University of Melbourne, has continued to serve industry on problems arising from the processing of Australian minerals. In addition, it is collaborating with interested firms in long-term studies on the chemistry of flotation pulps and assessment of the resistance of Australian ores to grinding.

All C.S.I.R.O. groups taking part in mineral research are in close contact with industry. Several projects are currently being developed by collaboration between C.S.I.R.O. and Australian firms, and the stage has now been reached where a significant proportion of the Organization's mineral research is carried on with funds provided by industry. A committee set up by the Advisory Council of C.S.I.R.O. is at present examining research needs in the mining and mineral processing industries in consultation with the other government agencies concerned.

Australian Atomic Energy Commission

The Australian Atomic Energy Commission conducts research at its laboratories at Lucas Heights in Sydney on the development of nuclear power, including research on nuclear materials and on metals and ceramics used for nuclear power. Research conducted by the Commission is discussed in detail in the chapter Education, Cultural Activities and Research.

Australian Mineral Development Laboratories

Research investigations into mineral problems are undertaken by the Australian Mineral Development Laboratories in Adelaide. This organization is sponsored by the Commonwealth Government, the South Australian Government and the Australian Mineral Industries Research Association (an association of companies engaged in the mineral industry formed to foster and develop mineral research). These sponsors furnish work for the laboratories, or guarantee finance, in the proportions 25 : 50 : 25 respectively. The laboratories have sections dealing with mineralogy, petrology, chemical analysis, ore-dressing, ceramic and extractive and physical metallurgy.

National Coal Research Advisory Committee

In December 1964 the appointments to the National Coal Research Advisory Committee were completed, and the inaugural meeting of the Committee was held in January 1965. The Committee will report on all coal utilization research programmes in Australia and advise the contributing Governments and industry as to the disposition of funds made available for such research. The Commonwealth matches additional funds made available by State Governments and by coal producing and consuming industries. In the first year of operation, 1965-66, additional funds of \$520,000 have been made available for increased coal utilization research, bringing total expenditure on coal utilization research in Australia to nearly \$2.5 million annually. In association with the setting up of the National Coal Research Advisory Committee, a new company, the Australian Coal Industry Research Laboratories Limited, was formed in late 1965 to take over all the current activities of the Australian Coal Association (Research) Limited, which was financed largely by the coal producing industry. This new company has available additional funds from the coal producing and consuming industries and from State and Commonwealth Governments, to permit the expansion of the former work of the Australian Coal Association (Research) Limited, in the particular direction of coal utilization research. The constitution of the Advisory Committee and the establishment of the new laboratories unit have brought into effect the recommendations of the Coal Utilization Research Advisory Committee which tabled its Report to Parliament in December 1962.

University research

The various universities in Australia carry out research into various aspects of the mineral industry such as geology, ore mineralogy and genesis, mining techniques, mineral processing, extractive metallurgy, and materials and metals technology.

Research by private enterprise

Most large mining and smelting companies have laboratories dealing with their own individual immediate problems. Private industry has formed the Australian Mineral Industries Research Association which is composed of forty-three members representing a large proportion of the mining, metallurgical and related companies operating in Australia at present. It was set up in 1959 chiefly to represent private industry in the management of the Australian Mineral Development Laboratories, but the Association now finances other research work into geology, mining and ore-dressing. The Association has conducted a survey among its members to obtain details of their research expenditure. The companies surveyed reported their expenditure on research and development, excluding exploration, as \$4,729,444 in 1962 and \$5,100,226 in 1963. Five of the companies reported their expenditure on research in excess of \$200,000 per annum, four between \$100,000 and \$200,000, five between \$20,000 and \$100,000, and twenty-nine reported a research budget less than \$20,000 per annum.

International relations

Because Australia is a large supplier of certain minerals to the rest of the world and because the welfare of the domestic industry depends to a large extent on the maintenance of a high level of exports, international relations are of considerable importance to the industry, and the Commonwealth Government takes an active role in international consultations and discussions relating to minerals. The most important international commitments are discussed on pages 1027-8.

International Tin Agreement

The First International Tin Agreement (of the post-war period) was in operation for five years from 1 July 1956 to 30 June 1961. This Agreement was subsequently replaced by the Second International Tin Agreement which came into force provisionally on 1 July 1961 and definitively on 21 February 1962.

This Agreement was for a period of five years and had the following objectives:

- (a) to prevent or alleviate widespread unemployment or under-employment and other serious difficulties likely to arise from maladjustments between the supply and the demand for tin;
- (b) to prevent excessive fluctuations in the price of tin and to achieve a reasonable degree of stability of price;
- (c) to ensure adequate supplies of tin at prices which are fair to consumers and provide a reasonable return to producers; and
- (d) to provide a framework for the consideration of measures to promote the progressively more economic production of tin, while protecting deposits of tin from unnecessary waste or premature abandonment, thus facilitating expansion in world consumption of tin; and to keep under review the long-term need for the development of new deposits of tin.

The Third International Tin Agreement, which is to come into operation as soon as possible after 30 June 1966, contains several additional objectives:

- (a) to ensure conditions which will help achieve a dynamic and rising rate of production of tin on the basis of a remunerative return to producers, which will help secure an adequate supply at prices fair to consumers and which will help provide a long-term equilibrium between production and consumption;
- (b) in the event of a serious shortage of supplies of tin occurring or being expected to occur, to take steps to secure an increase in the production of tin and a fair distribution of tin metal at equitable prices.

Although the framework of the Third Agreement is basically that of the Second, objectives have been broadened in line with the principles of the United Nations Conference on Trade and Development (UNCTAD) and, as such, emphasize the need for expansion of export earnings in the developing countries. Thus the emphasis has been shifted from surplus production and export controls inherent in the Second Agreement to one of increased production in the new Agreement.

The Agreement is operated by the International Tin Council which is made up of the following Governments: Australia, Austria, Belgium, Bolivia, Canada, Democratic Republic of the Congo, Denmark, France, India, Indonesia, Italy, Japan, Korea, Malaysia, Mexico, Netherlands, Federation of Nigeria, Spain, Thailand, Turkey, United Kingdom. Member Governments participate as producing or consuming countries. The producing countries hold a total of 1,000 votes, distributed so that each country receives five initial votes and an additional number corresponding to its percentage as laid down by the Agreement. The consuming countries hold a total of 1,000 votes also distributed so that each country receives five initial votes and an additional number proportionate to tonnages. The allocation of votes in each category is periodically reviewed.

The International Tin Agreement establishes floor and ceiling prices for tin and, by the medium of a buffer stock and remedial trading on the London Metal Exchange, aims at confining the price within these limits. The buffer stock is made up to the equivalent of 20,000 tons of tin by obligatory contributions from producing countries. In addition, both producing and consuming countries may make voluntary contributions to the buffer stock. However, since October 1963 world prices have been above the ceiling price.

International Lead-Zinc Study Group

With the cessation of stockpile buying of lead and zinc by the United States Government in 1958, world producers were faced with the prospect of a serious imbalance between world supply and demand for these metals. To meet this problem a series of meetings of interested governments was held, at which Australia was represented. These meetings culminated in the formation of the International Lead and Zinc Study Group which was established in January 1960. The Study Group comprises the following Governments: Australia, Austria, Belgium, Canada, Czechoslovakia, Denmark, Finland, France, the Federal Republic of Germany, India, Italy, Japan, Mexico, Morocco, the Netherlands, Norway, Peru, Poland, the Republic of South Africa, Spain, Sweden, the Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland, the United States of America, Yugoslavia. The Group provides opportunities for inter-governmental consultations on international trade in lead and zinc and for studies of the world situation in lead and zinc having regard especially to the desirability of providing continuous accurate information regarding the supply and demand position and its probable development.

Tungsten Conference

During 1963 meetings were held by the United Nations Ad Hoc Committee on Tungsten and by the Committee's Technical Working Group to assess the world tungsten situation and to consider methods for dealing with the depressed state of the market. The Working Group recommended that the Tungsten Committee be put on a regular rather than an *ad hoc* basis; this recommendation was adopted by the Committee at its fourth session held in May 1965. The necessity of obtaining comprehensive, uniform and timely world statistics was also formally recognized. However, in view of the recent buoyant marketing conditions for tungsten, no direct action to influence the world market for tungsten has been taken.

Scope and sources of statistics

Scope of statistics

Statistics presented in this chapter refer mainly to mining and quarrying, although data relating to mineral processing and treatment activities are included where appropriate to present a more complete picture of the place of minerals in the Australian economy.

The mining and quarrying industry is defined for statistical purposes as including all mining and quarrying and the recovery of minerals from ore dumps, tailings, etc. Ore-dressing and elementary smelting of metallic minerals (e.g. in the case of gold) and miscellaneous treatment of non-metallic minerals, where these are carried out in an associated plant at or near the mine, are included in the mining industry. However, establishments primarily engaged in smelting and/or refining (including the smelting and refining sections of the large plants operated at Mount Morgan and Mount Isa in Queensland and at Mount Lyell in Tasmania) are excluded from the statistical definition of the mining industry and are classified to the manufacturing industry.

The statistical coverage of establishments engaged in mining is considered to be satisfactory. However, coverage of establishments engaged in the quarrying of construction materials is incomplete in most States. This deficiency is due primarily to the inherent difficulty of obtaining complete lists of quarries (including those operated by government authorities), many of which operate intermittently and in different locations. There is difficulty also in obtaining satisfactory returns from quarries operated in conjunction with some other activity, e.g. roadmaking, brickworks, etc., and quarries operated in conjunction with large construction projects, such as the Snowy Mountains Scheme, are excluded from these statistics. In some States there have been deficiencies also in the collection of data for certain non-metal (excluding fuel) mining industries, mainly because these are outside the fields normally under the administrative control of Mines Departments. Products chiefly affected are clays, loam and silica.

Sources of statistics

Mining industry data (such as employment, costs, value of output, etc.) have been obtained annually since 1952 from the Mining and Quarrying Census. This Census is carried out in collaboration with the several Mines Departments and involves the uniform collection of particulars from all establishments employing on the average four or more persons during the period worked by the mine. A representative specimen collection form is included in the bulletin *Non-Rural Primary Industries and Value of Production*, No. 1, 1962-63. For smaller mines either simplified census returns covering number of persons employed and value of output are collected, or these particulars are compiled from data made available by the Mines Departments. Oil search operations are excluded from the annual census, but the Bureau of Mineral Resources conducts an annual survey of these activities.

Mineral production statistics contained in this chapter consist, in the main, of data from the annual census and official statistics of the Mines Departments of the several States and of the Northern Territory Mines Branch. The particulars shown have been compiled as far as practicable on the standardized basis which has been used in Australia since 1950, and this presentation has involved some re-arrangement of official statistics published by the Mines Departments in some States. These statistics have been supplemented, as necessary, by data obtained from the Statisticians of the several States, the Bureau of Mineral Resources, Geology and Geophysics, the Joint Coal Board, and from several other sources.

Data of imports and exports of minerals and mineral products have been extracted from the official trade statistics compiled in the Commonwealth Bureau of Census and Statistics. Values of Australian overseas trade shown throughout this chapter are expressed as \$A f.o.b. port of shipment.

Mineral exploration

In recent years mineral exploration in Australia has expanded considerably compared with earlier periods. Exploration for extensions of known reserves in producing localities has increased, and some important additions to known reserves have been made (e.g. as at Mt. Isa). In addition, exploration for new deposits has continued and as outlined earlier a number of important new finds have been made in recent years.

Some important features of exploration for minerals in Australia in this period have been the uranium exploration boom in the mid-1950's, the expansion of petroleum exploration since 1960, and the even more recent upsurge in general mineral exploration which has been marked by an influx of overseas companies and capital. Currently there is more active mineral exploration being carried out in Australia than at any other time in the twentieth century.

The pattern of exploration at present is that, in terms of expenditure and footage drilled, exploration for petroleum is the most important activity. Exploration for other minerals, although expanding rapidly, is not on as large a scale as petroleum exploration. The range of minerals sought is diverse, with probably most attention being devoted to the base metals and phosphate rock.

Petroleum exploration

During the post-war period there has been a very great increase in exploration for petroleum in Australia, and this increase has been particularly notable since 1961. In the years 1946 to 1964 more than \$287 million was spent on petroleum exploration in Australia and Papua and New Guinea out of a total expenditure to the end of 1964 of almost \$300 million. Until recently, exploration was concentrated in the sedimentary basins on the land mass, but increased attention is now being paid to the off-shore areas of the continental shelf, with promising results. Up to the end of 1964 the bulk of expenditure related to exploration in Queensland, Western Australia and Papua and New Guinea. Footage drilled has been greatest in Queensland, Western Australia and Victoria, with footage drilled in Papua and New Guinea being comparatively low. The growth of expenditures and drilling footage over recent years is shown in the following tables. These statistics have been derived from the Bureau of Mineral Resources, Geology and Geophysics. Recent developments in the search for petroleum are discussed on page 1050, and particulars of areas occupied under authorities to prospect or explore for petroleum are given on page 80 of the chapter Land Tenure and Settlement.

EXPENDITURE ON PETROLEUM EXPLORATION BY PRIVATE ENTERPRISE AND BY GOVERNMENTS: AUSTRALIA, 1964

Origin of expenditure	Expenditure	Percentage contribution
	\$'000	
Private enterprise—		
Funds of Australian origin	17,874	35.7
Funds of overseas origin	18,232	36.4
<i>Total, private enterprise</i>	<i>36,106</i>	<i>72.1</i>
State Government Departments	809	1.6
Commonwealth Government Departments (excluding subsidy payments)	4,035	8.1
Commonwealth Government subsidy payments	9,122	18.2
Total expenditure	50,072	100.0

**TOTAL EXPENDITURE ON PETROLEUM EXPLORATION BY PRIVATE ENTERPRISE
AND BY COMMONWEALTH, STATE AND BRITISH GOVERNMENTS
TO 31 DECEMBER 1964**

Origin of expenditure	Expenditure	Percentage contribution
	\$'000	
Private enterprise—		
To end of 1964—		
Funds of Australian origin	92,695	31.0
Funds of oversea origin	145,229	48.6
<i>Total, private enterprise</i>	237,924	79.6
Government—		
Prior to 1946—		
State Government	3,084	1.0
British Government	50	..
Commonwealth Government—Grants	324	0.1
Other	1,051	0.4
1946 to 1964—		
State and Territory Departments of Mines	5,593	1.9
Commonwealth Government—subsidy payments	31,612	10.6
Department of National Development (excluding subsidy payments)	19,245	6.4
Department of Interior—topographic surveys, oil search	200	..
<i>Total, Government</i>	61,159	20.4
<i>Total expenditure</i>	299,083	100.0

SUMMARY OF WELLS AND FOOTAGE DRILLED: STATES AND TERRITORIES, 1964

—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	T.P. N.G.	Total
Wells drilled(a)	14	7	156	14	16	..	6	1	214
Average total depth of wells drilled feet	4,912	6,464	4,842	5,555	7,039	..	3,873	4,249	5,081
Wells completed as potential oil producers . . . . .	..	..	8	..	3	..	..	..	11
Wells completed as potential gas producers . . . . .	..	..	33	4	2	..	2	..	41
Wells drilled or drilling over 10,000 feet . . . . .	..	1	2	3	3	..	..	..	9
Footage drilled—									
Completed wells feet	53,280	40,828	729,907	65,608	85,546	..	20,860	4,249	1,000,278
Uncompleted holes(b) feet	7,605	767	14,528	18,351	14,426	..	9,406	..	65,083
<i>Total footage drilled</i>	60,885	41,595	744,435	83,959	99,972	..	30,266	4,249	1,065,361

(a) Number of holes which reached total depth during the year. (b) Uncompleted holes means wells suspended or drilling at 31 December 1964.

**WELLS AND FOOTAGE DRILLED IN PETROLEUM EXPLORATION
STATES AND TERRITORIES TO 31 DECEMBER 1964**

State or Territory	To 31 December 1962		1963		1964		To 31 December 1964	
	Wells	Footage	Wells	Footage	Wells	Footage	Wells	Footage
New South Wales . . .	51	143,758	18	70,798	14	60,885	83	275,441
Victoria . . .	153	305,590	6	28,028	7	41,595	166	375,213
Queensland . . .	150	628,553	82	434,113	156	744,435	388	1,807,101
South Australia . . .	95	142,357	11	65,956	14	83,959	120	292,272
Western Australia . . .	100	362,770	5	41,423	16	99,972	121	504,165
Tasmania . . .	21	14,000	..	..	..	..	21	14,000
Northern Territory . .	5	14,202	5	18,967	6	30,266	16	63,435
Papua and New Guinea	42	208,328	1	4,657	1	4,249	44	217,234
<i>Total</i> . . .	..	..	128	663,942	214	1,065,361	..	..
Cumulative total . .	617	1,819,558	745	2,483,500	959	3,548,861	959	3,548,861

Other mineral exploration

As a result of the influx of overseas companies and an increase in exploration by the major Australian mining companies, exploration for minerals other than petroleum is also at a very high level and is expanding rapidly. It has been estimated that this exploration is about equally divided between areas in which mineral discoveries were made fifty to seventy years ago and geologically favourable areas where sub-surface exploration is being carried out for the first time. Statistics relating to this exploration are not available at present, but statistical coverage of these activities is being established and a basic range of statistics will be available in future.

Mining and quarrying

The mining and quarrying industry is classified into four major groups, namely metal mining, fuel mining, non-metal mining (excluding fuel), and construction material quarrying. Mining and quarrying establishments are classified to these groups and to sub-divisions of these groups on the basis of the product or products of the establishments. This method of classification is straightforward for those establishments which produce only one product, but for mines and quarries which produce more than one product classification is not as simple a matter. Such establishments are classified according to the most important mineral produced in terms of value. Thus a mine producing, say, both tin and tungsten minerals would be classified as a tin mine if tin were the more important product by value, and as a tungsten mine if tungsten were the dominant product. There is, however, one important exception to this rule in that the mining establishment at Mount Isa is classified to the lead-silver-zinc sector rather than to the copper-gold sector.

For mines and quarries which produce more than one product it is not possible to apportion particulars of operations (such as employment, salaries and wages paid, costs) to the minerals produced. In practice, then, these data are recorded only as a total for each mine, and the mine is classified to an industry sector as outlined above.

Statistics relating to the structure of the industry, employment, production costs, value of additions and replacements to fixed assets, and value of output and production are given in the following pages.

Number of mines and quarries

The following table shows the number of mines and quarries which operated in each State and Territory in 1964.

NUMBER OF MINES AND QUARRIES: STATES AND TERRITORIES, 1964

Industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust
Metal mining—									
Gold	33	22	29	..	148	3	11	..	246
Lead-silver-zinc	13	..	1	1	2	2	1	..	20
Copper-gold	12	2	40	1	24	1	6	..	86
Tin	51	5	247	..	14	27	27	..	371
Mineral sands	11	..	4	..	5	..	..	..	20
Other metal	16	3	7	3	21	3	3	..	56
Total, metal mining	136	32	328	5	214	36	48	..	799
Fuel mining—									
Black coal—									
Underground	91	2	66	..	3	(a) 7	..	..	169
Opencut	3	..	5	1	1	..	..	..	10
Total, black coal	94	2	71	1	4	7	..	..	179
Brown coal . . . . .	..	7	..	..	..	..	..	..	7
Other fuel . . . . .	..	..	3	..	..	..	..	..	3
Total, fuel mining	94	9	74	1	4	7	..	..	189
Non-metal (excluding fuel) mining	390	65	92	115	68	23	3	..	756
Total, all mining	620	106	494	121	286	66	51	..	1,744
Construction material quarrying(b)	316	363	50	215	53	108	33	10	1,148
Total, all mining and quarrying	936	469	544	336	339	174	84	10	2,892

(a) Includes one mine operating both underground and open-cut workings. (b) Incomplete, owing to difficulties of coverage. See Scope and sources of statistics, page 1028.

In the next table, the numbers of mines and quarries which operated in Australia in each of the years 1960 to 1964 are shown.

NUMBER OF MINES AND QUARRIES: AUSTRALIA 1960 TO 1964

Industry	1960	1961	1962	1963	1964
Metal mining—					
Gold	296	295	286	257	246
Lead-silver-zinc	28	27	22	13	20
Copper-gold	90	111	107	98	86
Tin	216	266	344	300	371
Mineral sands	22	21	20	18	20
Other metal	94	85	87	62	56
Total, metal mining	746	805	866	748	799
Fuel mining—					
Black coal	218	202	198	185	179
Brown coal	7	6	6	6	7
Other fuel . . . . .	..	..	..	2	3
Total, fuel mining	225	208	204	193	189
Non-metal (excluding fuel) mining(a)	698	755	731	792	756
Total, all mining	1,669	1,768	1,801	1,733	1,744
Construction material quarrying(a)	892	(b) 1,056	(b) 1,107	(b) 1,044	(b) 1,148
Total, all mining and quarrying	2,561	(b) 2,824	(b) 2,908	(b) 2,777	(b) 2,892

(a) Incomplete. See Scope and sources of statistics, page 1028. (b) Not comparable with years prior to 1961, owing to extension of coverage in Victoria.

Employment in mining and quarrying

Persons engaged. Statistics of persons employed in the mining and quarrying industry are derived mainly from the annual census of that industry.

Data on the work force employed in the industry are also obtained from the population censuses of Australia. The population census figure for mining and quarrying includes a number of persons excluded from the mining and quarrying census employment figure, e.g. persons engaged in exploration activities, prospectors, head office employees, etc.

In the following table, which shows particulars collected in the population censuses of Australia at 30 June 1947, 1954, and 1961, the numbers of persons whose industry statements were classified to 'mining and quarrying' are shown together with the numbers engaged in all primary industries and the total work force.

**PERSONS ENGAGED IN MINING AND QUARRYING: AUSTRALIA
1947 TO 1961**

	Census, 30 June—		
	1947	1954	1961
Persons engaged in—			
Mining and quarrying . . .	57,574	62,107	54,401
All primary industries . . .	563,607	560,100	513,286
Total work force . . .	3,196,431	3,702,022	4,225,096
Persons engaged in mining and quarrying as a proportion of—			
All primary industries . . %	10.2	11.1	10.6
Total work force . . . %	1.8	1.7	1.3

An adjustment was made to the 1947 and 1954 industry data by distributing over the range of recorded industry the number of persons whose industry was not stated. No such adjustment was made to the 1961 figures.

The following table is derived from mining census data and shows the average numbers engaged in the various mining industries in each State or Territory in 1964.

**MINING AND QUARRYING: EMPLOYMENT^(a)
STATES AND TERRITORIES, 1964**

Industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Metal mining—									
Gold . . .	9	148	107	..	4,357	1	131	..	4,753
Lead-silver-zinc . . .	4,288	..	(b)	1	(b)	(b)	..	..	7,811
Copper-gold . . .	211	5	(b)	2	129	(b)	328	..	2,341
Tin . . .	197	8	412	..	107	435	32	..	1,191
Mineral sands . . .	1,116	..	323	..	295	..	..	..	1,734
Other metal . . .	36	5	107	393	(b)	(b)	45	..	1,348
Total, metal mining . .	5,857	166	4,684	396	5,457	2,082	536	..	19,178
Fuel mining—									
Black coal—									
Underground . . .	11,233	236	(b)	..	(b)	118	..	..	c14631
Opencut . . .	134	..	(b)	271	(b)	..	..	..	733
Total, black coal . .	11,367	236	2,612	271	760	118	..	..	c15,364
Brown coal . . .	..	1,673	..	..	..	..	..	..	1,673
Total, fuel mining . .	11,367	1,909	2,612	271	760	118	..	..	17,037
Non-metal (excluding fuel) mining . . .	1,114	255	299	502	518	95	..	..	2,783
Total, all mining . .	18,338	2,330	7,595	1,169	6,735	2,295	536	..	38,998
Construction material quarrying^(d) . . .	1,919	1,920	421	880	302	253	49	70	5,814
Total, all mining and quarrying . .	20,257	4,250	8,016	2,049	7,037	2,548	585	70	44,812

(a) Average employment during whole year, including working proprietors. (b) Not available for publication. (c) Includes other fuel mining. (d) Incomplete owing to difficulties of coverage. See Scope and sources of statistics, page 1028.

The following table shows particulars of mining employment in Australia for the years 1960 to 1964. The figures show the average number of persons employed during the whole year, including working proprietors.

MINING AND QUARRYING: EMPLOYMENT, AUSTRALIA, 1960 TO 1964

Industry	1960	1961	1962	1963	1964
Metal mining—					
Gold	5,544	5,438	5,290	5,287	4,753
Lead-silver-zinc	8,731	8,158	7,958	7,946	7,811
Copper-gold	2,364	2,322	2,242	2,288	2,341
Tin	946	1,131	1,157	1,116	1,191
Mineral sands	1,127	1,141	1,408	1,565	1,734
Other metal	1,177	1,097	968	1,168	1,348
<i>Total, metal mining</i>	<i>19,889</i>	<i>19,287</i>	<i>19,023</i>	<i>19,370</i>	<i>19,178</i>
Fuel mining—					
Black coal	18,529	16,957	16,312	a 15,636	a 15,364
Brown coal	1,399	1,441	1,453	1,613	1,673
<i>Total, fuel mining</i>	<i>19,928</i>	<i>18,398</i>	<i>17,765</i>	<i>17,249</i>	<i>17,037</i>
Non-metal (excluding fuel) mining	2,925	2,942	2,838	2,823	2,783
<i>Total, all mining</i>	<i>42,742</i>	<i>40,627</i>	<i>39,626</i>	<i>39,442</i>	<i>38,998</i>
Construction material quarrying(b)	5,016	c 5,498	c 5,599	c 5,406	5,814
<i>Total, all mining and quarrying</i>	<i>47,758</i>	<i>c 46,125</i>	<i>c 45,225</i>	<i>c 44,848</i>	<i>c 44,812</i>

(a) Includes other fuel mining. (b) Incomplete, see Scope and sources of statistics, page 1028. (c) Not comparable with years prior to 1961, owing to extension of coverage in Victoria.

Size classification of mines and quarries. Most of the mines and quarries worked during 1964 employed less than four persons, including working proprietors. However, more than half of the persons engaged in mining and quarrying were in the 45 mines each employing 200 persons or more. The following table shows the distribution of the total number of mines into various size groups according to the average number of persons employed during the period worked by each mine in 1964.

NUMBER OF MINES AND QUARRIES AND PERSONS EMPLOYED, BY AVERAGE NUMBER EMPLOYED: STATES AND TERRITORIES, 1964

Mines and quarries employing on the average(a)—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T. and A.C.T.	Aust.
Less than 4 persons—								
Establishments	651	269	380	222	237	132	76	1,967
Persons	953	474	568	411	624	264	156	3,450
From 4 to 20 persons—								
Establishments	170	172	89	99	73	28	11	642
Persons	1,349	1,337	848	786	560	227	109	5,216
From 21 to 200 persons—								
Establishments	90	26	73	13	19	11	6	238
Persons	6,988	1,042	3,349	675	1,243	578	269	14,144
More than 200 persons—								
Establishments	25	2	2	2	10	3	1	45
Persons	11,314	1,775	3,666	570	4,844	1,697	282	24,148
Total—								
Establishments	936	469	544	336	339	174	94	2,892
Persons	20,604	4,628	8,431	2,442	7,271	2,766	816	46,958

(a) Average during period worked. Includes working proprietors.

Accidents in mining. Particulars of numbers of persons killed and injured in accidents in mines and associated treatment plants are recorded by State Mines Departments. Numbers injured are not reported on a uniform basis in all States, as varying criteria are used in determining what constitutes injury. In 1964, 27 persons were recorded as killed and 1,120 as injured in mining (excluding quarrying) accidents. Recorded deaths and injuries in that year were highest in black coal mines (9 and 242, respectively), silver-lead-zinc mines (7 and 265), gold mines (6 and 293), and copper-gold mines (3 and 69). Persons killed and injured in the construction material quarrying industry numbered 3 and 71 respectively in 1964.

Salaries and wages paid

Salaries and wages paid in the mining and quarrying industries in Australia during each year 1960 to 1964 are shown in the following table. Information regarding rates of wages paid in the mining industry is shown in the chapter Labour, Wages and Prices (page 349) and also in the *Labour Report*.

MINING AND QUARRYING: SALARIES AND WAGES PAID(a), AUSTRALIA 1960 TO 1964 (\$'000)

Industry	1960	1961	1962	1963	1964
Metal mining—					
Gold	13,310	13,182	13,068	13,072	11,812
Lead-silver-zinc	27,110	26,522	24,454	25,678	29,948
Copper-gold	5,876	5,830	5,702	6,200	6,834
Tin	1,810	1,892	2,100	2,502	2,648
Mineral sands	2,672	2,948	3,478	4,156	4,706
Other metal	2,676	2,554	2,376	3,184	4,038
<i>Total, metal mining</i>	<i>53,454</i>	<i>52,928</i>	<i>51,178</i>	<i>54,792</i>	<i>59,986</i>
Fuel mining—					
Black coal	51,836	50,920	49,698	(b)49,230	(b)52,204
Brown coal	3,570	3,846	3,942	4,634	5,144
<i>Total, fuel mining</i>	<i>55,406</i>	<i>54,766</i>	<i>53,640</i>	<i>53,864</i>	<i>57,348</i>
Non-metal (excluding fuel) mining(c)	5,328	5,750	5,796	5,764	6,248
<i>Total, all mining</i>	<i>114,188</i>	<i>113,444</i>	<i>110,614</i>	<i>114,420</i>	<i>123,582</i>
Construction material quarrying(c)	7,256	(d) 8,036	(d) 8,762	(d) 8,684	(d) 9,364
<i>Total, all mining and quarrying</i>	<i>121,444</i>	<i>d 121,480</i>	<i>d 119,376</i>	<i>d 123,104</i>	<i>d 132,946</i>

(a) Excludes mines and quarries employing less than four persons, and drawings by working proprietors: the amounts are net after deducting value of explosives sold to employees. (b) Includes other fuel mining. (c) Incomplete. See Scope and sources of statistics, page 1028. (d) Not comparable with years prior to 1961, owing to extension of coverage in Victoria.

Power, fuel, light, and materials, etc., used

The following table contains details of the value of power, fuel, materials, and stores used by the mining and quarrying industry during each year 1960 to 1964.

**MINING AND QUARRYING: VALUE OF POWER, FUEL, LIGHT, AND
MATERIALS, ETC., USED, AUSTRALIA, 1960 TO 1964**

(\$'000)

Industry	1960	1961	1962	1963	1964
Metal mining—					
Gold	9,818	9,958	9,894	9,758	8,334
Lead-silver-zinc	24,212	20,606	17,342	21,590	22,688
Copper-gold	6,576	7,006	6,768	7,232	7,698
Tin	1,060	1,202	1,274	1,508	1,854
Mineral sands	3,124	3,594	3,676	5,052	4,906
Other metal	2,218	2,516	2,484	2,850	3,162
<i>Total, metal mining</i>	<i>47,008</i>	<i>44,882</i>	<i>41,438</i>	<i>47,990</i>	<i>48,644</i>
Fuel mining—					
Black coal	22,638	24,818	26,692	(a)27,002	(a)29,114
Brown coal	1,246	1,244	1,344	1,478	1,532
<i>Total, fuel mining</i>	<i>23,884</i>	<i>26,062</i>	<i>28,036</i>	<i>28,480</i>	<i>30,648</i>
Non-metal (excluding fuel) mining(b)	4,680	5,016	5,636	5,534	5,342
<i>Total, all mining</i>	<i>75,572</i>	<i>75,960</i>	<i>75,110</i>	<i>82,004</i>	<i>84,636</i>
Construction material quarrying(b)	8,854	(c) 9,852	(c) 9,000	(c) 9,082	(c) 9,752
<i>Total, all mining and quarrying</i>	<i>84,426</i>	<i>(c)85,812</i>	<i>(c)84,110</i>	<i>(c)91,086</i>	<i>(c)94,388</i>

(a) Includes other fuel mining.

(b) Incomplete. See Scope and sources of statistics, page 1028.

(c) Not comparable with years prior to 1961, owing to extension of coverage in Victoria.

Value of additions and replacements to fixed assets in mining and quarrying

The following table shows details for Australia of the value of additions and replacements to fixed assets during the years 1960 to 1964.

**MINING AND QUARRYING: VALUE OF ADDITIONS AND REPLACEMENTS TO
FIXED ASSETS(a), AUSTRALIA, 1960 TO 1964**

(\$'000)

Industry	1960	1961	1962	1963	1964
Metal mining—					
Gold	1,578	1,556	3,216	2,024	1,365
Lead-silver-zinc	7,096	6,850	7,046	14,154	20,071
Copper-gold	902	1,690	2,730	5,066	7,419
Tin	370	522	540	1,548	4,459
Mineral sands	962	1,456	3,752	2,436	3,592
Other metal	2,738	2,276	5,154	4,476	5,556
<i>Total, metal mining</i>	<i>13,646</i>	<i>14,350</i>	<i>22,438</i>	<i>29,702</i>	<i>42,462</i>
Fuel mining—					
Black coal	21,894	23,070	26,096	b 20,668	b 19,952
Brown coal	3,828	5,446	6,122	6,610	5,416
<i>Total, fuel mining</i>	<i>25,722</i>	<i>28,516</i>	<i>32,218</i>	<i>27,278</i>	<i>25,368</i>
Non-metal (excluding fuel) mining(c)	1,176	2,548	1,408	1,742	3,498
<i>Total, all mining</i>	<i>40,544</i>	<i>45,414</i>	<i>56,064</i>	<i>58,722</i>	<i>71,328</i>
Construction material quarrying(c)	3,248	4,562	3,902	3,898	5,868
<i>Total, all mining and quarrying</i>	<i>43,792</i>	<i>49,976</i>	<i>59,966</i>	<i>62,620</i>	<i>77,194</i>

(a) Excludes mines and quarries employing less than four persons.

(b) Includes other fuel mining

(c) Incomplete. See Scope and sources of statistics, page 1028.

Value of output and production

The following tables show particulars of value of output on an ex-mine basis (local value of production) and value of production (net value of production) for recent years. *These statistics are on an industry basis and not by product.* A more detailed reference to the value of production of mining and quarrying and other industries together with a brief explanation of terms used will be found in the chapter Miscellaneous.

Local value of mining and quarrying production. The following tables show particulars of the local value of production of mining and quarrying for 1964 and earlier years.

MINING AND QUARRYING: LOCAL VALUE OF PRODUCTION(a)
STATES AND TERRITORIES, 1964
 (\$'000)

Industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Metal mining—									
Gold	22	738	534	1	23,768	1	2,344	..	27,406
Lead-silver-zinc	87,990			12	(b)	(b)	2	..	149,328
Copper-gold	178	4	57,048	6	796	(b)	4,238	..	18,290
Tin	1,946	44	3,952	..	1,232	2,830	74	..	10,078
Mineral sands	10,816	..	4,436	..	2,694	..	..	..	17,948
Other metal	260	14	2,562	11,532	(b)	(b)	4	..	20,614
Total, metal mining	101,212	800	68,536	11,552	33,302	21,600	6,660	..	243,664
Fuel mining—									
Black coal	97,252	544	21,618	3,296	4,678	650	..	..	128,040
Brown coal . . . . .	..	17,304	..	..	..	..	..	..	17,304
Other fuel . . . . .	..	..	2,164	..	..	..	..	..	2,164
Total, fuel mining	97,252	17,848	23,782	3,296	4,678	650	..	..	147,508
Non-metal (excluding fuel) mining—									
Clays(c)	2,808	2,880	224	766	394	126	..	..	7,196
Gypsum	254	234	..	1,438	88	..	..	..	2,014
Limestone	3,048	1,300	1,482	2,380	298	730	..	..	9,236
Salt	(b)	(b)	(b)	1,716	(b)	..	2	..	2,124
Other non-metal mining(c)	1,462	(b)	(b)	3,422	(b)	8	(d)	..	7,234
Total, non-metal mining	7,570	4,710	2,014	9,720	2,922	864	2	..	27,802
Total, all mining	206,034	23,358	94,332	24,570	40,904	23,112	6,662	..	418,972
Construction material quarrying(c)	26,674	21,534	2,956	14,368	4,462	1,936	570	738	73,236
Total, all mining and quarrying	232,708	44,892	97,286	38,938	45,366	25,048	7,234	738	492,208

(a) Value of output or selling value of products at the mine or quarry. (b) Not available for publication, included in total for Australia. (c) Incomplete. See Scope and sources of statistics, page 1028. (d) Less than \$500.

MINING AND QUARRYING: LOCAL VALUE OF PRODUCTION(a)
STATES AND TERRITORIES, 1960 TO 1964
 (\$'000)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T. and A.C.T.	Aust.
1960 .	159,282	32,534	75,216	27,904	44,332	16,134	7,078	362,480
1961 .	156,342	(b)40,054	64,440	31,824	44,992	15,918	6,732	(b)360,302
1962 .	159,928	(b)40,016	74,198	30,774	46,490	17,806	5,926	(b)375,138
1963 .	185,352	(b)40,840	84,084	34,208	44,768	20,304	7,126	(b)416,682
1964 .	232,708	(b)44,892	97,286	38,938	45,366	25,048	7,972	(b)492,208

(a) Value of output or selling value of products at the mine or quarry. (b) Not comparable with years prior to 1961, owing to extension of coverage of quarrying activities.

Net value of mining and quarrying production

The following tables show particulars of the net value of production of mining and quarrying for 1964 and earlier years.

MINING AND QUARRYING: NET VALUE OF PRODUCTION^(a)
STATES AND TERRITORIES, 1964
 (\$'000)

Industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Metal mining—									
Gold	18	(b)	(b)	1	16,068	1	2,038	..	19,074
Lead-silver-zinc	78,118	..	(b)	12	(b)	(b)	2	..	126,640
Copper-gold	130	2	(b)	6	482	(b)	3,084	..	10,592
Tin	1,628	40	3,202	..	946	2,764	54	..	8,632
Mineral sands	8,184	..	3,027	..	1,830	..	..	..	13,041
Other metal	234	(b)	2,434	10,038	(b)	(b)	4	..	17,040
Total, metal mining	88,314	596	52,344	10,056	23,144	15,382	5,182	..	195,018
Fuel mining—									
Black coal	74,398	422	19,140	2,750	3,842	536	..	..	101,088
Brown coal . . . . .	..	15,772	..	..	..	..	..	..	15,772
Total, fuel mining	74,398	16,192	19,140	2,750	3,842	536	..	..	116,860
Non-metal (excluding fuel) mining—									
Clays ^(d)	2,314	2,722	184	678	272	116	..	..	6,288
Gypsum	182	200	..	1,272	72	..	..	..	1,725
Limestone	2,220	744	924	2,044	272	588	..	..	6,792
Salt . . . . .	..	(b)	(b)	1,464	(b)	..	2	..	(e) 1,847
Other non-metal mining ^(d)	1,288	(b)	(b)	3,210	(b)	6	(f)	..	5,806
Total, non-metal mining	6,006	3,960	1,388	8,666	1,726	712	2	..	22,460
Total, all mining	168,718	20,748	72,872	21,472	28,712	16,630	5,184	..	334,338
Construction material quarrying^(d)	26,674	16,308	2,124	12,594	3,450	1,544	322	468	63,484
Total, all mining and quarrying	195,390	37,056	74,996	34,068	32,162	18,174	5,506	468	397,822

(a) Local value (i.e. value of output at mine or quarry) less cost of power, fuel, light and other materials and stores used; depreciation and maintenance costs have not been deducted. (b) Not available for publication, included in total for Australia. (c) Includes other fuel mining. (d) Incomplete. See Scope and sources of statistics, page 1028. (e) No allowance has been made for cost of power, fuel, light, and materials and stores used by the salt industry in Victoria as particulars are not available. (f) Less than \$500.

MINING AND QUARRYING: NET VALUE OF PRODUCTION^(a)
STATES AND TERRITORIES, 1960 TO 1964

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T. and A.C.T.	Aust.
NET VALUE OF PRODUCTION (\$'000)								
1960	126,428	26,316	54,920	22,808	30,888	10,952	5,742	278,054
1961	121,368	(b) 32,958	46,868	26,206	31,106	10,406	5,578	(b) 274,490
1962	125,218	(b) 32,394	58,006	26,414	32,244	12,234	4,518	(b) 291,028
1963	149,710	(b) 33,652	61,948	29,614	30,698	14,466	5,508	(b) 325,596
1964	195,390	(b) 37,056	74,996	34,068	32,162	18,174	5,974	(b) 397,822

NET VALUE OF PRODUCTION PER HEAD OF POPULATION
 (\$)

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T. and A.C.T.	Aust.
1960	32.6	9.0	36.6	23.8	42.4	31.2	71.0	26.8
1961	30.8	(b) 11.2	30.8	26.8	41.8	29.2	62.8	(b) 26.0
1962	31.2	(b) 10.8	37.4	26.4	42.2	33.8	46.6	(b) 27.0
1963	36.6	(b) 10.8	39.4	29.0	39.2	39.6	51.4	(b) 29.6
1964	47.0	(b) 11.7	47.0	32.7	40.3	49.4	51.1	(b) 35.4

(a) Local value, (i.e. value of output at mine or quarry), less cost of power, fuel, light, and other materials and stores used; depreciation and maintenance costs have not been deducted. (b) Not comparable with years prior to 1961, owing to extension of coverage of quarrying activities.

Quantity of principal minerals produced

In the preparation of Australian mineral commodity production statistics the quantities and values of individual minerals produced are recorded in terms of the form in which they are dispatched from the locality of each mine. For example, in the case of metalliferous mines, the output is recorded as ore if no treatment is undertaken at the mine, or as a concentrate if ore-dressing operations are carried out in associated works in the locality of the mine. In addition to the basic quantity data, the contents of metallic minerals and contents or average grade of selected non-metallic minerals are recorded. Whenever practicable, contents (based on assay) of metallic minerals are shown for each metal which is a 'pay metal' or a 'refiners' prize' when present in the particular mineral. In general, other metallic contents which are not recovered are excluded. Individual mineral products are arranged in four groups corresponding to the major groups of the industry, namely metal mining, fuel mining, non-metal mining (excluding fuels), and construction material quarrying, referred to on page 1031. Particulars relating to uranium-bearing minerals are excluded.

The following tables show particulars of the quantity of the principal minerals produced during 1964 and earlier years.

**QUANTITIES OF PRINCIPAL MINERALS PRODUCED
STATES AND NORTHERN TERRITORY, 1964**

Mineral	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
METALLIC MINERALS								
Antimony ore and concentrate. tons	414							414
Bauxite	10,907	1,766	447,580	..	323,647	..	..	783,900
Beryllium ore	31	..	..	..	80	..	..	111
Copper ore(a)	3	17	47,200	54	2,197	10,215	..	59,686
Copper concentrate	1,028	38	332,712	..	4,619	49,463	39,398	427,258
Copper precipitate	119	..	93	..	..	51	1	264
Gold(b) oz.	838	24,057	34,938	19	1,023,555	106	66,566	1,150,079
Ilmenite concentrate tons	6,198	..	108	..	297,322	..	..	303,628
Iron ore(c) '000 tons	..	..	..	4,311	1,358	..	..	5,669
Lead ore(d) tons	10,009	..	15,165	..	..	..	..	25,174
Lead concentrate	384,995	..	133,000	..	3,354	14,853	11	536,213
Lead-copper concentrate . . . . .	..	..	..	..	..	10,214	..	10,214
Leucoxene concentrate . . . . .	..	..	..	..	656	..	..	656
Manganese ore	336	15	199	11	60,182	..	366	61,109
Pyrite concentrate	3,280	..	26,385	85,851	58,396	46,166	..	220,078
Rutile concentrate	131,549	..	50,153	..	669	..	..	182,371
Tantalite-columbite concentrate lb.	..	..	..	..	33,600	..	..	33,600
Tin concentrate tons	1,036	20	2,133	..	637	1,438	50	5,314
Tungsten concentrates—								
Scheelite concentrate . . . . .	..	..	..	..	4	1,016	..	1,020
Wolfram concentrate . . . . .	..	..	..	..	..	380	..	380
Zinc concentrate	453,232	..	50,817	..	..	84,791	..	588,840
Zircon concentrate	118,294	..	44,277	..	21,511	..	..	184,082

FUEL MINERALS

Coal, black—								
Semi-anthracite . . . '000 tons	..	..	77	..	..	2	..	79
Bituminous	20,699	47	3,582	..	..	149	..	24,477
Sub-bituminous . . . . .	..	..	121	1,736	987	..	..	2,845
<i>Total coal, black</i>	20,699	47	3,780	1,736	987	151	..	27,401
Coal, brown (lignite) . . . . .	..	19,035	..	..	..	..	..	19,035
Natural gas '000 c. ft.	..	..	106,490	..	..	..	..	106,490
Natural gas condensate gals.	..	..	8,568	..	..	..	..	8,568
Crude oil '000 gals.	..	..	52,157	..	..	..	..	52,157

For footnotes see next page.

**QUANTITIES OF PRINCIPAL MINERALS PRODUCED
STATES AND NORTHERN TERRITORY, 1964—continued**

Mineral	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
NON-METALLIC (EXCLUDING FUEL) MINERALS								
Asbestos short tons	1,165	..	..	..	12,489	..	..	13,654
Barite tons	1,299	..	..	10,831	172	..	..	12,302
Clays—								
Brick clay and shale . '000 tons	2,059	1,549	368	517	496	174	..	5,163
Other(e) " "	575	197	71	79	87	30	..	1,039
Diatomite tons	3,261	671	4,800	..	..	..	..	8,732
Dolomite(f) " "	5,545	..	7,585	222,015	..	923	..	236,068
Felspar " "	6,136	..	9	1,490	1,386	..	..	9,021
Gypsum " "	64,584	104,212	..	581,209	44,998	..	..	795,003
Limestone(f) . . . '000 tons	2,705	1,371	(g)	1,542	(g)	352	..	7,223
Magnesite tons	29,281	..	..	395	1,574	..	..	31,250
Phosphate rock . . . . . " "	..	..	..	5,689	..	..	..	5,689
Salt, crude " "	..	(g)	(g)	440,332	(g)	..	60	545,491
Silica (glass, chemical, etc.) . . .	223,883	..	49,603	25,026	10,151	13,606	..	322,269
Talc " "	1,697	..	..	8,566	5,432	..	..	15,695

CONSTRUCTION MATERIALS(e)

Sand '000 tons	5,127	3,299	n.a.	1,854	n.a.	160	(h) 317	10,757
River gravel " "	2,013	4,041	n.a.	873	n.a.	1,075	(h) 115	8,117
Dimension stone " "	381	10	3	32	149	6	(h) 9	590
Crushed and broken stone . . .	3,970	12,989	2,457	11,454	2,027	1,010	(h) 267	34,173
Other (decomposed rock, etc.) . .	20,240	2,919	114	n.a.	n.a.	110	(h) 76	23,460

(a) Includes cupreous ore for fertilizer. (b) Bullion, alluvial, retorted gold, etc. (c) Iron oxide for metal extraction only. (d) Includes lead-silver-zinc ore. (e) Incomplete, see Scope and sources of statistics, page 1028. (f) Excludes quantities used directly as building or road material. (g) Not available for publication. (h) Includes Australian Capital Territory which is not available for separate publication.

**QUANTITIES OF PRINCIPAL MINERALS PRODUCED: AUSTRALIA
1960 TO 1964**

Mineral	1960	1961	1962	1963	1964
METALLIC MINERALS					
Antimony ore and concentrate . . tons	256	190	100	115	414
Bauxite " "	69,435	15,976	29,547	354,206	783,900
Beryllium ore " "	190	306	223	110	111
Chromite " "	529	..	369	160	72
Copper ore(a) " "	68,321	75,215	101,492	82,035	59,686
Copper concentrate " "	432,758	373,770	395,427	434,368	427,258
Copper precipitate " "	1,301	825	216	504	264
Gold—other forms(b) . . . '000 oz.	(c)	(c)	(c)	1,231	1,150
Ilmenite concentrate tons	106,497	165,865	178,867	200,983	303,628
Iron ore(d) '000 tons	4,355	5,342	4,843	5,515	5,669
Lead ore(e) tons	13,716	7,743	13,197	16,249	25,174
Lead concentrate " "	449,590	382,292	522,276	584,462	536,213
Lead-copper concentrate " "	6,797	8,057	11,192	9,309	10,214
Leucoxene concentrate " "	89	535	627	547	656
Manganese ore " "	60,646	87,411	71,646	36,061	61,109
Pyrite concentrate " "	238,630	213,423	148,566	194,059	220,078
Rutile concentrate " "	88,637	101,431	119,195	183,260	182,371
Tantalite-columbite concentrate . lb.	23,677	31,808	43,097	30,889	33,600
Tin concentrate tons	3,099	3,870	3,842	4,132	5,314
Tungsten concentrates—					
Scheelite concentrate " "	420	1,017	995	958	1,020
Wolfram concentrate " "	1,131	1,142	492	394	380
Zinc concentrate " "	549,000	542,640	572,900	594,861	588,840
Zircon concentrate " "	102,362	136,462	133,844	184,830	184,082

For footnotes see next page.

QUANTITIES OF PRINCIPAL MINERALS PRODUCED: AUSTRALIA
1960 TO 1964—continued

Mineral	1960	1961	1962	1963	1964
FUEL MINERALS					
Coal, black—					
Semi-anthracite . . . '000 tons	50	59	70	61	79
Bituminous . . . „	20,641	21,991	22,006	22,268	24,477
Sub-bituminous . . . „	1,878	1,956	2,394	2,527	2,845
<i>Total, coal, black</i> . . . „	22,569	24,006	24,470	24,856	27,401
Coal, brown (lignite) . . . „	14,967	16,279	17,137	18,456	19,035
Natural gas . . . '000 c. ft.	..	12,187	56,361	95,725	106,490
Natural gas condensate . . . gals.	..	559	2,199	4,312	8,568
Crude oil . . . '000 gals.	..	..	..	..	52,157

NON-METALLIC (EXCLUDING FUEL) MINERALS

Asbestos . . . short tons	15,613	16,746	18,416	13,374	13,654
Barite . . . tons	11,417	19,217	12,534	8,220	12,302
Clays—					
Brick clay and shale . . '000 tons	4,636	4,344	4,383	4,549	5,163
Other . . . „	880	912	913	984	1,039
Diatomite . . . tons	4,659	5,417	7,312	5,133	8,732
Dolomite(f) . . . „	190,868	191,624	180,697	214,339	236,068
Felspar . . . „	8,414	8,209	8,513	8,842	9,021
Gypsum . . . „	580,878	609,907	630,910	725,444	795,003
Limestone(f) . . . '000 tons	5,669	6,146	6,415	6,721	7,223
Magnesite . . . tons	62,166	98,795	62,191	56,946	31,250
Phosphate rock . . . „	2,321	4,874	4,385	4,925	5,689
Salt, crude . . . „	463,296	508,657	536,019	581,537	545,491
Silica (glass, chemical, etc.) . . „	210,100	212,575	218,544	247,928	322,269
Talc . . . „	15,670	13,545	14,060	13,106	15,695

CONSTRUCTION MATERIALS(g)

Sand . . . '000 tons	5,934	7,427	7,535	9,050	10,757
River gravel . . . „	2,932	6,018	5,912	7,624	8,117
Dimension stone . . . „	318	533	379	629	590
Crushed and broken stone . . „	22,530	27,303	27,944	29,768	34,175
Other (decomposed rock, etc.) . . „	15,586	16,482	17,310	20,830	23,460

(a) Includes cupreous ore for fertilizer. (b) Bullion, alluvial, retorted gold, etc. (c) Gross weight not available. (d) Iron oxide for metal extraction. (e) Includes lead-silver-zinc ore. (f) Excludes quantities used directly as building or road material. (g) Incomplete owing to difficulties of coverage. See Scope and sources of statistics, page 1028. 1961 and later figures are not comparable with previous years owing to extension of coverage in Victoria.

NOTE. Particulars of production of uranium oxide (U_3O_8) are not available for publication.

Contents of metallic minerals produced

The following tables show the contents of metallic minerals produced in 1964 and earlier years.

**CONTENTS OF METALLIC MINERALS PRODUCED
STATES AND NORTHERN TERRITORY, 1964**

Content of metallic minerals produced	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
Alumina (Al_2O_3) . . . tons	4,156	880	261,834	..	129,459	..	..	396,329
Antimony . . . "	1,116	..	..	..	..	..	..	1,116
Beryllium oxide (BeO) . . . units(a)	390	..	..	..	889	..	..	1,279
Cadmium . . . tons	973	..	..	..	..	77	..	1,050
Chromic oxide (Cr_2O_3) . . . "	..	..	32	..	..	..	..	32
Cobalt . . . "	73	..	..	..	..	..	..	73
Copper . . . "	3,630	7	74,732	11	1,513	14,879	9,278	104,050
Gold . . . fine oz.	10,569	21,284	100,937	17	715,481	34,381	81,165	963,834
Iron(b) . . . '000 tons	..	..	..	2,802	853	..	..	3,655
Lead . . . tons	296,954	..	61,927	..	620	15,348	7	374,856
Manganese(c) . . . "	6,156	..	..	..	30,408	..	..	36,564
Manganese dioxide (MnO_2)(d) . . . "	225	6	150	6	423	..	223	1,033
Monazite . . . "	599	..	180	..	1,069	..	..	1,848
Silver . . . '000 fine oz.	10,735	1	5,572	..	242	1,780	98	18,427
Sulphur(e) . . . tons	202,881	..	29,604	33,911	24,002	56,104	..	346,502
Tantalite-columbite ($Ta_2O_5 + Nb_2O_5$) . . lb.	..	..	..	..	12,499	..	..	12,499
Tin . . . tons	671	14	1,493	..	446	990	28	3,642
Titanium dioxide (TiO_2) . . . "	129,108	..	48,820	..	164,718	..	..	342,646
Tungstic oxide (WO_3) . . . "	..	..	..	..	3	993	..	996
Zinc . . . "	256,001	..	37,577	42	825	50,155	..	344,600
Zircon . . . "	117,044	..	43,834	..	21,296	..	..	182,174

(a) 1 unit = 22.4 lb. (b) Excludes iron content of iron oxide not intended for metal extraction.
(c) Content of metallurgical grade manganese ore and zinc concentrate. (d) Content of manganese ore of other than metallurgical grade. (e) Sulphur content of pyrite and other minerals from which sulphur is extracted.

NOTE. Particulars of production of uranium oxide (U_3O_8) are not available for publication.

CONTENTS OF METALLIC MINERALS PRODUCED: AUSTRALIA, 1960 TO 1964

Content of metallic minerals produced	1960	1961	1962	1963	1964
Alumina (Al_2O_3) . . . tons	31,393	7,464	13,250	154,499	396,329
Antimony . . . "	786	680	874	1,007	1,116
Beryllium oxide (BeO) . . . units(a)	2,221	3,585	2,586	1,278	1,279
Bismuth . . . lb.	..	602	97	..	..
Cadmium . . . tons	949	907	992	1,109	1,050
Chromic oxide (Cr_2O_3) . . . "	265	..	185	72	32
Cobalt . . . "	65	65	78	86	73
Copper . . . "	109,435	95,626	106,972	112,967	104,050
Gold . . . fine oz.	1,086,709	1,076,292	1,068,837	1,023,970	963,834
Iron(b) . . . '000 tons	2,814	3,434	3,119	3,558	3,655
Lead . . . tons	308,163	269,656	370,110	410,291	374,856
Manganese(c) . . . "	33,964	45,087	39,413	23,951	36,564
Manganese dioxide (MnO_2)(d) tons	2,058	1,429	1,512	1,228	1,033
Molybdenum disulphide (MoS_2) lb.	..	2,630	2,332	21,645	..
Monazite . . . tons	344	1,463	772	1,875	1,848
Platinum . . . oz.	4	2	2	4	..
Silver . . . '000 fine oz.	15,216	13,059	17,554	19,642	18,427
Sulphur(e) . . . tons	340,000	324,866	312,803	345,636	346,502
Tantalite-columbite ($Ta_2O_5 + Nb_2O_5$) . . lb.	11,500	13,814	18,879	12,935	12,499
Tin . . . tons	2,202	2,745	2,715	2,860	3,642
Titanium dioxide (TiO_2) . . . "	144,742	191,965	215,494	288,050	342,646
Tungstic oxide (WO_3) . . . "	1,111	1,536	1,042	960	996
Zinc . . . "	317,489	311,157	337,532	351,470	344,600
Zircon . . . "	101,494	134,483	132,109	182,112	182,174

(a) 1 unit = 22.4 lb. (b) Iron oxide for metal extraction. (c) Content of metallurgical grade manganese ore and zinc concentrate. (d) Content of manganese ore of other than metallurgical grade. (e) Sulphur content of pyrite and other minerals from which sulphur is extracted.

NOTE. Particulars of production of uranium oxide (U_3O_8) are not available for publication.

Graphs showing details of the mine production of principal metals (metallic content) and coal from 1935 to 1965 are included on plates 58 and 59.

Local value of minerals produced, 1960 to 1964

Particulars of the values of minerals (mine and quarry products) produced are shown in the following table. The values represent the selling value at the mine or quarry of minerals produced during the years concerned.

LOCAL VALUE OF MINERALS PRODUCED: AUSTRALIA, 1960 TO 1964 (\$'000)

Mineral	1960	1961	1962	1963	1964
Metallic minerals—					
Copper ore, concentrate, etc.	50,878	42,498	48,604	52,036	51,380
Gold ore, concentrate, other forms, etc. . .	31,740	31,718	31,254	29,556	26,666
Iron ore	9,688	11,798	10,650	12,200	12,550
Lead and lead-silver ore and concentrate, lead-copper concentrate, etc.	40,792	33,866	39,096	56,320	80,806
Manganese ore	658	854	960	492	750
Pyrite concentrate	2,272	2,504	2,230	2,354	3,054
Rutile concentrate	7,278	6,628	7,038	12,114	12,080
Tin concentrate	3,880	5,572	5,668	5,784	10,224
Tungsten concentrates	1,880	2,066	1,118	1,640	1,420
Zinc ore and concentrate	15,460	10,590	9,110	16,468	35,456
Zircon concentrate	1,944	2,534	2,582	3,550	3,462
Other metallic minerals	1,150	1,536	1,894	2,994	5,794
Total, metallic minerals	167,620	152,164	160,204	195,508	243,642
Fuel minerals—					
Coal, black	110,402	114,162	119,078	118,202	128,038
Coal, brown	13,690	15,444	15,682	16,156	17,304
Other fuel minerals . . . . .	..	n.a.	n.a.	58	2,164
Total, fuel minerals	124,092	129,606	134,760	134,416	147,506
Total, non-metallic minerals	21,686	22,990	24,320	26,038	27,814
Total, construction materials(a)	49,082	(b) 55,542	(b) 55,854	(b) 60,720	(b) 73,244
Total, all minerals and construction materials	362,480	(b) 360,302	(b) 375,138	(b) 416,682	(b) 492,208

(a) Incomplete owing to difficulties of coverage. See Scope and sources of statistics, page 1028. (b) Not comparable with years prior to 1961, owing to extension of coverage in Victoria.

NOTE. Particulars of the value of uranium concentrate produced are not available for publication and have been excluded from the table above.

Owing to the necessity of classifying individual mines according to the principal mineral produced, the values in the table on page 1037 for mining industry groups differ slightly in some cases from totals of the corresponding groups of mine products shown in the table above.

Mineral processing and treatment

The extraction of minerals from ore deposits, as in mining and quarrying, is only part of the wider field of mineral technology. It is only in rare instances that minerals can be used directly in the form in which they are produced by mines, and much more commonly minerals must undergo considerable processing and treatment before their full utility and value can be realized. Examples of this processing and treatment are the smelting and refining of metals, the production of coke from coal, the refining of oil, and the treatment of non-metallic minerals as in the production of superphosphate and other chemicals and building materials like bricks and cement. The sectors of the economy which carry out this work are classified for statistical purposes to the manufacturing industry, and particulars relating to those activities which principally involve mineral processing and treatment—i.e. the treatment of non-metalliferous mine and quarry products, the manufacture of mineral oils and chemical fertilizers, the smelting, converting, refining and rolling of iron and steel, the extracting and refining of other metals, and the manufacture of alloys are given in the chapter Manufacturing Industry, pages 95–119 and 126–8.

Principal products

The following table shows particulars of the production of certain important manufactured products of mineral origin. Secondary metal is excluded from the metal production statistics except in the case of ingot steel. For blister copper and lead bullion the figures shown relate to the copper and lead content respectively.

**PRODUCTION OF PRINCIPAL MANUFACTURED PRODUCTS
OF MINERAL ORIGIN: AUSTRALIA, 1960-61 TO 1964-65**

Commodity	1960-61	1961-62	1962-63	1963-64	1964-65
METALS					
Non-ferrous—					
Refined aluminium . . . tons	12,101	14,408	26,870	58,937	85,702
Blister copper(a) . . . "	70,678	66,818	88,901	92,809	57,880
Refined copper . . . "	68,986	63,769	85,652	89,222	55,773
Lead bullion (for export)(a) . . . "	52,927	56,063	78,851	82,440	63,827
Refined lead . . . "	174,816	174,497	208,946	217,296	199,030
Refined zinc . . . "	125,936	153,742	175,850	186,388	189,396
Refined tin . . . "	2,422	2,442	2,714	2,959	2,931
Ferrous—					
Pig iron . . . '000 tons	3,002	3,380	3,400	3,772	4,033
Steel ingots . . . "	3,748	4,076	4,260	4,764	5,121
Precious—					
Refined gold(b) . . . '000 f. oz.	1,031	1,036	1,006	911	871
Refined silver . . . "	8,008	6,751	8,514	9,392	8,939
FUELS					
Coal products—					
Metallurgical coke . . . '000 tons	2,739	2,717	2,759	2,915	3,175
Brown coal briquettes . . . "	1,807	1,800	1,805	1,883	1,892
Petroleum products—					
Motor spirit . . . mill. gals	1,150	1,213	1,263	1,358	1,482
Furnace fuel . . . '000 tons	3,519	3,873	4,629	4,686	4,869
Automotive distillate . . . "	1,514	1,605	1,654	1,616	1,603
Industrial diesel fuel . . . "	1,055	874	981	917	862
BUILDING MATERIALS					
Clay bricks . . . millions	1,061	992	1,059	1,238	1,344
Portland cement . . . '000 tons	2,860	2,783	2,942	3,320	3,741
Plaster of paris . . . "	245	228	241	259	276
Plaster sheets (fibrous) '000 sq. yds	17,176	15,332	15,932	15,922	14,298
CHEMICALS					
Sulphuric acid . . . '000 tons	1,122	1,136	1,256	1,447	1,613
Caustic soda . . . tons	47,758	47,539	56,481	64,230	69,879
Superphosphate . . . '000 tons	2,531	2,591	2,862	3,347	3,703

(a) Metallic content.

(b) Newly-won gold of Australian origin.

Oversea trade

A significant proportion of Australia's mineral production is exported to overseas markets, and these exports make a valuable contribution to total exports. The major exports at present are lead, zinc, coal, mineral sands, gold, silver, copper, basic iron and steel products, and opals.

Mineral imports are dominated by crude petroleum, imports of which have expanded rapidly since the mid-1950's, concomitant with the growth of the domestic petroleum refining industry. Of the other mineral imports, the most important are phosphate rock, sulphur, asbestos, alumina, tin, nickel, industrial diamonds, and potassium fertilizers.

Exports and imports

Particulars of the quantities and values (\$A f.o.b. port of shipment) of the principal minerals and mineral products exported from and imported into Australia during the years 1962 to 1964 are shown in the following table.

IMPORTS AND EXPORTS OF PRINCIPAL MINERALS AND MINERAL PRODUCTS AUSTRALIA, 1962 TO 1964

Item	Quantity			Value (\$A'000 f.o.b.)		
	1962	1963	1964	1962	1963	1964
IMPORTS						
Alumina tons	10,821	54,486	71,437	780	3,650	4,818
Aluminium, refined ingots "	31,389	12,115	565	14,886	5,528	372
Asbestos short tons	39,105	36,628	42,896	4,874	4,212	4,872
Gold, unrefined bullion(a) fine oz.	132,957	161,847	143,144	4,148	5,050	4,466
Ferro-alloys tons	16,218	28,778	19,271	2,592	4,976	4,172
Petroleum oils—						
Crude '000 gals.	2,976,789	3,287,455	3,253,882	133,350	149,000	147,356
Enriched crude "	411,683	575,951	671,635	23,384	27,446	31,916
Kerosenes "	103,176	88,993	59,309	10,806	9,648	6,268
Lubricating oil "	52,296	53,536	46,778	14,432	14,770	12,532
Gasolines and solvents "	234,186	254,956	289,359	26,186	28,398	32,316
Phosphate rock '000 tons	1,721	1,762	2,355	8,968	10,708	16,236
Sulphur tons	229,195	222,527	376,639	4,778	4,304	6,548
Tin, refined "	1,778	1,751	1,283	3,986	3,724	3,798
Titanium oxide (pigments) "	5,947	5,086	2,875	2,288	2,012	1,230
EXPORTS(b)						
Coal tons	2,909,169	3,174,773	4,805,953	23,388	26,674	41,046
Copper—						
Ore and concentrate "	78,983	30,937	47,255	9,968	4,102	6,484
Ingots, pigs (refined) "	16,497	24,485	13,817	9,654	14,018	8,316
Rolled, drawn and extruded shapes "	3,270	5,049	5,077	2,376	3,814	4,264
Gold, refined fine oz.	314,996	472,132	427,203	9,864	14,778	13,382
Iron and steel—						
Pig iron tons	157,502	132,798	55,940	7,028	5,290	2,622
Ingots, blooms and slabs "	97,950	31,909	8,507	6,420	2,058	528
Tinplate "	25,238	68,200	65,435	4,268	9,534	9,028
Scrap "	138,977	334,351	392,408	3,934	7,930	10,114
Lead—						
Ore and concentrate(c) "	109,058	121,983	112,194	11,192	13,428	17,614
Lead-silver bullion "	76,014	76,482	76,061	12,424	13,386	20,094
Pig "	197,049	174,988	155,305	26,398	26,488	35,094
Opals . . . . . "	..	..	..	4,212	5,394	5,398
Petroleum oils—						
Gasolines and solvents '000 gals.	32,073	51,742	51,975	4,262	5,734	5,470
Kerosenes "	20,710	25,718	12,685	2,508	3,160	1,588
Automotive distillate "	165,262	126,665	76,630	16,576	12,878	7,600
Residuals and heavy distillates "	350,661	384,877	234,203	20,752	22,946	12,912
Rutile concentrate tons	117,291	154,508	193,893	7,258	10,632	14,080
Zinc—						
Ore and concentrate "	255,209	261,856	224,117	8,144	8,998	15,684
Refinery type shapes "	91,215	96,775	80,184	14,918	17,114	21,226
Zircon concentrate "	131,843	179,697	198,664	3,290	4,354	5,124

(a) Includes gold contained in matte.

(b) Includes re-exports.

(c) Includes lead-copper concentrate.

Considerable quantities of metallic ores, concentrates, slags, and residues are exported from Australia for refining overseas. The following table shows the quantities of such items exported during 1964 and their principal metallic content as estimated by assay.

**PRINCIPAL METALLIC CONTENTS OF SPECIFIED ORES AND CONCENTRATES
ETC. EXPORTED FROM AUSTRALIA DURING 1964**

Ores and concentrates, etc.	Quantity exported	Metallic contents—estimated from assay							
		Anti- mony	Copper	Gold	Lead	Silver	Tin	Tungstic oxide	Zinc
	tons	tons	tons	fine oz.	tons	'000 fine oz.	tons	tons	tons
Copper—									
Ore, concentrate and precipitate	47,634	..	11,437	22,815	..	211	..	..	..
Copper-lead dross and speiss	6,904	..	1,169	..	4,488	268	..	..	83
Other slags and residues	440	2	258	..	4	..	15	..	..
Blister	40	..	37	..	..	..	..	..	..
Matte	8,284	..	3,194	83	3,414	234	2	..	..
Lead—									
Ore and concentrate(a)	112,194	180	2,667	24,546	72,623	2,616	..	..	7,460
Slags and residues	12,343	53	252	2,404	5,600	32	52	..	175
Lead-silver bullion	76,061	..	..	..	75,258	4,878	..	..	..
Tin concentrate	457	..	5	..	1	..	252	2	..
Tungsten—									
Scheelite ore and concentrate	1,471	..	..	..	..	..	..	1,021	..
Wolfram ore and concentrate	423	..	..	..	..	..	..	310	..
Zinc—									
Ore and concentrate	224,117	..	..	..	2,029	68	..	..	116,385
Slags and residues	6,793	..	..	..	..	..	..	..	5,097
Total metallic contents	..	235	19,019	49,848	163,417	8,306	321	1,333	129,200

(a) Includes lead-copper concentrate.

The following table shows indexes at constant prices of exports of minerals and basic mineral products for the years 1953 to 1965.

**EXPORTS OF MINERAL PRIMARY PRODUCTS
INDEX AT CONSTANT PRICES(a), 1953 TO 1964**
(Base of each index : year 1959 = 100)

Year	Metals	Other mineral products	All mineral products
1953	111	56	88
1954	96	57	79
1955	87	62	76
1956	104	77	93
1957	102	101	102
1958	102	81	93
1959	100	100	100
1960	90	136	110
1961	132	153	142
1962	156	155	156
1963	157	156	156
1964	136	216	171

(a) These series are composed of two indexes linked at 1959.

Direction of trade

Australia's minerals are exported to many countries throughout the world, but the principal markets are Japan, United Kingdom, United States, and Europe. Since 1960 Japan has been the principal buyer of Australian minerals. The distribution of exports according to principal destinations, and imports according to principal sources, for the years 1962 to 1964, are shown in the following table.

**VALUE OF OVERSEA MINERAL TRADE, BY COUNTRY OR REGION
AUSTRALIA(a), 1962 TO 1964**

Country or region	Value (\$A m f.o.b.)			Percentage		
	1962	1963	1964	1962	1963	1964
EXPORTS(b)						
Japan	56.0	53.8	72.6	35.8	32.0	32.1
Other Asian and Pacific	13.4	13.8	25.8	8.6	8.2	11.4
United Kingdom	35.2	49.0	68.4	22.5	29.2	30.2
European Economic Community	21.6	18.4	27.8	13.8	11.0	12.3
United States	21.0	22.2	27.0	13.4	13.2	11.9
Other	9.2	10.8	4.8	5.9	6.4	2.1
Total	156.4	168.0	226.4	100.0	100.0	100.0
IMPORTS						
Middle east	93.4	118.0	126.8	43.8	51.2	51.5
Indonesia	40.6	47.0	44.6	19.0	20.4	18.1
Other Asian	5.0	4.2	14.8	2.4	1.8	6.0
Pacific	8.4	11.4	15.6	3.9	4.9	6.3
United States	12.4	7.4	17.2	5.8	3.2	7.0
Canada	13.8	8.2	8.0	6.5	3.6	3.3
Europe (including United Kingdom and European Economic Com- munity)	3.2	5.2	9.8	1.5	2.3	4.0
Other	36.4	29.0	9.4	17.1	12.6	3.8
Total	213.2	230.4	246.2	100.0	100.0	100.0

(a) Excludes gold movements. (b) Excludes uranium oxide and alumina, details of which are not available for publication.

Review of recent developments in the Australian mineral industry

In previous issues of the Year Book it has been customary to include a series of detailed reviews of the principal commodities produced by the Australian mineral industry. However, with the increasing diversification and development of the industry in recent years, it has become impractical to continue these reviews in the Year Book and the reader who wishes to obtain information of this kind is referred to *The Australian Mineral Industry—Annual Review*, published by the Bureau of Mineral Resources, Geology and Geophysics. This Annual Review contains comprehensive reviews of the mineral commodities of importance to the Australian economy, as well as a general review of the industry's performance during each year. Major developments in the industry are reviewed in subsequent parts of this section.

General review, 1965

Expansion of the mineral industry continued during 1965 despite the effects of the Mount Isa mine closure during late 1964 and early 1965. The value of output of mining and quarrying in 1965, on an ex-mine basis, is estimated at \$538 million, compared with \$492 million in 1964. Processing and treatment of mine and quarry products added substantially to this value and the industry's total contribution to the economy increased significantly. Despite the loss of export income from copper, and returns from lead and zinc which were lower than might have been expected, export earnings from minerals and mineral products were at a record level in 1965. Expenditure on exploration continued to increase and expenditure on petroleum exploration during 1965 was more than \$50 million.

Iron ore

Considerable interest is now being focussed on the development of the extensive resources of iron ore which have been revealed in Australia in the last few years. Developments up to early 1965 were reviewed in the previous issue of the Year Book (No. 51, page 1164). Over the last year additional contracts have been negotiated, and the pattern of development has become clearer. Recent developments are summarized below.

In August 1965 a contract was signed with the Japanese steel industry to supply 71.4 million tons of pellets (64 per cent iron content) over twenty-one years from April 1968 from the Robe River iron ore deposits. The contract provided for the construction of a pelletizing plant with a capacity of 5 million tons at Cape Preston by 1968. The Commonwealth Government subsequently granted a licence for these exports in March 1966.

Approval was granted by the Commonwealth Government in August 1965 to a contract which had been negotiated for the export of 16 million tons of pellets from the Mount Tom Price iron ore deposits to the Japanese steel industry over a period of sixteen years. In January 1966, however, the Commonwealth Government refused to grant an export licence for the export of a further 8.6 million tons of pellets to Japan from the Mount Tom Price deposit on the basis that the price was too low. Further negotiations took place, and in late March 1966 it was announced that agreement had been reached with the Japanese purchasers whereby the original 16 million tons of pellets would be shipped to Japan over a period of ten years, with no change in the approved price. The new agreement also incorporated variations in the pellet specifications in the previous contract. The Commonwealth Government subsequently granted a licence for the revised export contract, and plans are being developed for the establishment of a pelletizing plant at King Bay with an annual capacity of 2 million tons.

On 4 April 1966 the Commonwealth Government announced that permission had been granted for the export of 1.4 million tons of iron ore from the Mount Bundy deposits in the Northern Territory. Shipments, at an annual rate of 200,000 tons, will commence during 1967 and extend for a period of seven years. Total capital expenditure is estimated to be \$3.2 million.

In addition to these contracts with Japan, a contract has been concluded with a Welsh steel company for the export of 875,000 tons of iron ore from the Mount Tom Price iron ore deposits. Shipments under this contract are to commence in 1967 and to extend for a period of three years.

The projects under development as a result of these export contracts will require a capital investment in excess of \$500 million and involve the construction of about 625 miles of standard gauge railway and the development of four new ports for vessels of 60,000 tons and larger. Deliveries under the existing contracts will be spread over the period 1966-1991.

The following table summarizes iron ore contracts signed up to early 1966.

IRON ORE CONTRACTS: AUSTRALIA, UP TO EARLY 1966

State	Material	Quantity	Approximate value	Estimated cost of projects
		mil. tons	\$m	\$m
Western Australia	Ore	192.95	1,558	286
	Pellets	87.4	932	148
Tasmania	Pellets	45.0	494	80
Northern Territory	Ore	4.4	32.6	9.8
Total		329.75	3,016.6	523.8

Steel

In September 1965 it was announced that blast furnace, plate and strip capacity at Port Kembla would be expanded at a cost of \$80 million. The complete expansion programme will ultimately include new coke ovens, new steelmaking and primary rolling equipment, and additions to the tin-plate plant. The completion of these projects will make Port Kembla one of the world's major producing centres for flat products and will involve a total capital expenditure in excess of \$180 million.

Aluminium

The history of the aluminium industry in Australia and recent significant developments in the industry were reviewed in the previous issue of the Year Book (No. 51, page 1168). The aluminium industry continued its growth during 1965 and 1966, and plans for the establishment

of new smelting plants and the expansion of existing plants were announced. On 21 July plans were announced for the establishment of an aluminium smelter at Kurri Kurri near Newcastle by 1969. The new smelter will have a capacity of 35,700 tons per annum. The cost of this plant is expected to be approximately \$35 million. In December 1965 a \$9 million expansion programme was announced for the Bell Bay (Tasmania) smelting plant to bring capacity to 71,500 tons of aluminium per year. These increases in capacity will raise total domestic capacity to almost 150,000 tons per annum. In 1965 an aluminium extrusion plant was established at Belmont, Perth (Western Australia).

On 15 September 1965 the Commonwealth Government announced that the lease covering the central portion of the bauxite deposits in the Gove area had been allotted to a consortium made up of one overseas and several Australian companies. In addition to bauxite mining, the consortium envisages the construction at Gove by 1971 of a 500,000 tons per annum alumina plant, with associated facilities, at a cost of about \$100 million.

Deposits of bauxite were discovered in the Kimberly district of Western Australia during 1965, and testing of these deposits is proceeding to ascertain their commercial significance.

The Tariff Board opened an inquiry into the domestic aluminium industry on 28 September 1965. Until the report of the Tariff Board is received, protection in the form of tariffs and quantitative import restrictions, which had been temporarily extended after the date of expiry in January 1965, have been further extended.

Copper

Copper production during the second half of 1964 and the first half of 1965 was seriously disrupted by an industrial dispute at Mount Isa. Production at Mount Isa was resumed in March 1965, and subsequently record production levels were achieved. The \$130 million expansion programme at Mount Isa is due for completion in 1967-68.

An important recent development was the revival of copper mining at Cobar. Following an extensive investigation and development programme in the last few years, ore production at Cobar recommenced in July 1965. Mine output in terms of contained copper is expected to rise to about 15,000-20,000 tons per year by late 1966, although the drought resulted in diminished water supplies and caused a reduction in output in early 1966.

Lead-zinc

The Australian lead-zinc industry has been experiencing one of the most prosperous periods of its history as a result of higher prices for lead and zinc since 1963. Mine and smelter output has not increased significantly, but higher prices have meant considerably increased returns for the producing companies.

As from October 1958 imports of lead and zinc into the United States were controlled by a quota system. Australia received a quota for lead but not for zinc, and Australian exports of lead and zinc were restricted by this policy. In October 1965 the quota system was revoked, and in future all producing countries will have equal access to the large United States market.

A large lead-zinc deposit has been delineated at McArthur River in the Northern Territory, and further exploration and investigation is proceeding. In May 1966 it was announced by the company concerned that expenditure on this project to the end of 1966 would exceed \$3 million. It was anticipated that feasibility studies would continue for about five years before a decision on possible development could be made.

Black coal

There has been a significant revival of the Australian black coal industry in recent years as a result of increased exports and increased domestic consumption of black coal in iron and steel production and electricity generation. These increases have more than balanced losses in consumption in some uses due to competition from fuel oil.

The expansion of the export trade has been of major significance. In 1955 exports were about 200,000 tons valued at about \$1.7 million; in 1965 exports were 7.2 million tons valued at \$60.7 million. These increased exports have been almost wholly to Japan. As a result of this increased demand, new mines have been opened or are under development in Queensland and New South Wales, and established mines are being expanded.

In late 1965 further agreements for the export of coal to Japan were made public. These agreements and contracts which were negotiated earlier provide for exports of black coal to Japan to rise from about 7.5 million tons in 1966 to over 12 million tons in 1970. In 1970 the value of exports of black coal to Japan under existing contracts amounts to about \$100 million. The existing contracts in total involve the sale of almost 70 million tons of coal valued at about \$540 million. The largest single contract involves the export from Moura in central Queensland of 29.6 million tons of coal over thirteen years.

Petroleum

Petroleum exploration in Australia continued to expand during 1964 and 1965. Encouraging discoveries in the last few years, although small by world standards, have given new stimulus to further expenditure on exploration in potential areas. Developments in the last few years were reviewed in previous issues of the Year Book (No. 48, page 1094-8, No. 51, page 1179). A summary of developments in 1965 and early 1966 is given below.

Australia now has two commercial oil fields, Moonie and Alton, in Queensland, which together are producing more than 10,000 barrels of oil daily. Commercial production from an oil field on Barrow Island, Western Australia, will commence in 1967. A number of potentially important gas strikes were made during 1965 and the first half of 1966. Gas flows from two deep wells at Gingin, fifty-five miles north of Perth, might have potential for utilization in industrial enterprises at Kwinana. Promise of a major field of gas and possibly oil is indicated at Mereenie, 140 miles south-west of Alice Springs, Northern Territory. Other structures in adjacent areas, particularly one well at Palm Valley, have given very promising results. Potentially important gas discoveries have also been made at Gidgealpa and Moomba in South Australia.

Following the discovery of a number of natural gas flows in Queensland in the years 1962-1964, exploration activity has been concerned largely with further drilling in the vicinity of these discoveries. Drilling has continued at Rolleston and near Roma and Bony Creek, Richmond and Pickanjinnee. The possibility of a very extensive natural gas deposit at Gilmore is being further investigated. Small but interesting oil flows from several wells in the Roma area, such as Sunny Bank and Richmond, suggest possible commercial fields, but further drilling is required.

Substantial gas flows from three off-shore wells on the Gippsland Shelf, off the south-east Victorian coast, preceded the oil and gas discovery in the area announced on 15 March 1966. These discoveries, because of their close proximity to potential industrial consumers in Melbourne, could be of great significance, and prospects for this area are rated as very promising. These discoveries on the East Gippsland Shelf are characteristic of a new phase which petroleum exploration in Australia is now entering—off-shore exploration. Considerable attention is now being devoted to off-shore areas, and plans have been announced to bring additional off-shore drilling rigs to Australia to take part in this activity. As a result of this increase in interest in off-shore drilling, it is planned to construct off-shore drilling rigs at the shipbuilding and engineering works at Whyalla. Proposals have been made for uniform Australian legislation to control and administer this part of the search for oil. These proposals are outlined on page 1018.

Early in 1965 the Tariff Board conducted a public inquiry to determine an appropriate price for Australian crude oil, having regard to the Commonwealth Government's desire to encourage the search for oil and the consequent need to offer sufficient incentive to exploration companies. At the same time the Government indicated that it was anxious to prevent or minimize increased costs of petroleum products to consumers, and to ensure that refineries using Australian crude oil were not detrimentally affected in relation to other refineries. Evidence was heard from oil exploration, marketing and refining interests. Government officials, coal and power interests, and major users of refined petroleum products. The Tariff Board subsequently recommended that Australian crude oil should be valued at \$US 2.48 a barrel at the nearest refining centre, plus a differential for the quality of the oil produced. The Board also recommended an additional margin of 25 cents a barrel to provide an incentive for increased exploration activity. The Government adopted the Tariff Board's recommendations, but raised the incentive margin to 75 cents. As a result, the price for Moonie crude is \$US 3.50 a barrel delivered Brisbane, made up as follows: crude oil value, \$US 2.48; incentive margin, \$US 0.75; quality differential, \$US 0.27. This pricing method will operate for five years, but the Government will consider reviewing the valuation during this period if it considers that the incentive to exploration has proved inadequate.

In order to ensure that local crude oil is used in Australian refineries, the Government has also adopted the Tariff Board's recommendation to impose penal import duties of 0.8 cents a gallon on crude oil and 2.4 cents a gallon on motor spirit to be paid by those companies which do not take their share of local crude oil. The share of local crude to be taken will be based on the importer's share of total imports of refinery feedstock or refined products or both.

Any oil found in the Territory of Papua and New Guinea will be covered by these policies in the same way as oil found in Australia.

CHAPTER 27

DEFENCE

Department of Defence

Functions of Department of Defence

The functions of the Department of Defence include: defence policy; joint Service matters and matters having an inter-departmental defence aspect; the financial requirements of defence policy and the allocation of the funds made available; the supply aspect of defence policy including the review of production programmes and capacity; important matters of policy or principle affecting the Defence Forces and their requirements, including the strength, organization and disposition of the forces, higher appointments in the Services, their weapons and equipment, and defence research and development.

Organization, higher defence machinery and the control of the joint Service machinery

The joint Service and inter-departmental advisory machinery of the Department consists of various committees headed by the Defence Committee, the Chiefs of Staff Committee, the Defence Administration Committee, and the Joint War Production Committee.

The Defence Committee is a statutory body consisting of the Secretary, Department of Defence, who is Chairman; the Chairman of the Chiefs of Staff Committee; the Chiefs of Staff of the three Services; the Secretary, Prime Minister's Department; the Secretary, Department of External Affairs; and the Secretary to the Treasury. Its function is to advise the Minister for Defence on: the defence policy as a whole and the co-ordination of military, strategic, economic, financial, and external affairs aspects of defence policy; matters of policy or principle and important questions having a joint Service or an inter-departmental defence aspect; and such other matters having a defence aspect as are referred to the Committee by or on behalf of the Minister for Defence.

The Chiefs of Staff Committee meets regularly for the discussion of technical military matters on a joint service basis, and is responsible in peace for the preparation of military appreciations and plans. The functions of the Defence Administration Committee are the regular review of the progress of the Defence Programme, the co-ordination or integration of Service activities where appropriate in the interests of improved efficiency and economy, and the improvement of methods and organization. The function of the Joint War Production Committee is, briefly, to examine the Services' requirements for war *matériel* and to recommend whether industrial capacity is adequate to meet them. The major committees subordinate to the Defence Committee and/or the Chiefs of Staff Committee comprise the Principal Administrative Officers Committee (Maintenance and *Matériel*), the Principal Administrative Officers Committee (Personnel), the Defence Research and Development Policy Committee, the Joint Planning Committee, the Joint Intelligence Committee, and the Joint Administrative Planning Committee.

In addition, the Defence Business Board furnishes advice on business matters of common interest to the three Services, or important subjects on which the collective advice of the Board is desired from the business aspect, with a view to promoting efficiency and economy in the execution of the Defence Programme. The Board comprises businessmen who serve in a part-time honorary capacity and consists of an independent chairman and deputy chairman and the business advisers of the three Service Departments.

Basis of current defence policy

The objectives of Australia's defence policy are:

- to provide for the security of Australia and its island Territories;
- to pursue close friendship and co-operation with non-communist Asian countries;
- to seek the support of particularly the United States and the United Kingdom for promoting co-operative arrangements between the United States, the United Kingdom, Australia, New Zealand, and south-east Asian countries for collective security purposes in this area and for the defence and security of Australia;
- to counter communist aggression in south-east Asia;
- to support the development of the United Nations as an effective instrument of collective security.

These aims are pursued through a series of defence programmes which are designed to give progressive effect to the objectives of policy approved by the Government and are capable of adjustment in the light of strategic developments and changes in the international situation.

Because of the increased strength which comes from collective security, Australia participates in a policy of collective defence in south-east Asia, which is the area of primary defence interest to Australia. The SEATO, ANZUS and Commonwealth arrangements in which Australia participates are a fundamental part of current Australian strategic thinking and outlook, and much of the Government's defence effort is directed to supporting these alliances in a measure commensurate with national interests and resources while at the same time making appropriate provision for the immediate defence of Australia and her territories in the light of assessed threats. The provision by Australia of a site for the United States Naval Communication Station at North West Cape is a most important contribution to the mutual purposes of the ANZUS Pact.

General or global war is considered unlikely except as a result of miscalculation, but armed conflicts short of general war could develop at any time in areas of tension throughout the world. The prospects in south-east Asia are such that Australian defence policy must be based on the probable continuance of pressures and hostilities in the area which could in some circumstances develop into conflict on a larger scale. There is therefore a range of military situations in which Australia must be prepared to contribute forces and sustain them for a period. Should the situation change and Australia itself be directly threatened, our collective defence arrangements would be of great importance in maintaining the security of Australia and its territories.

The defence programme

The defence programme must be maintained at a level that will enable Australia to meet its regional and home defence responsibilities. In the present strategic circumstances the main aim of Australian defence preparations is the continual improvement of the capability of the forces to make a prompt and effective contribution to any allied effort required in a limited war or emergency situation in south-east Asia, while at the same time having the capacity for independent action to meet the initial shock of an emergency. To achieve this aim emphasis is placed on progressively increasing our military capacity and preparedness through the availability of highly trained regular forces, backed by appropriate reserves and citizen forces, and possessing a high degree of mobility to conduct operations throughout the area of Australia's strategic interests. The forces are being extensively re-equipped with modern conventional weapons which are standard or compatible, as far as possible, with those used by United States forces with whom Australia is associated in defence arrangements.

Navy. The naval programme provides for the continuing modernization and development of the Royal Australian Navy into a well-balanced fleet with emphasis on anti-submarine capabilities. Details of ships in commission and in reserve and of the current ship-building programme are shown on page 1056. In addition a wide range of naval projects is being provided. These include support facilities for the Charles F. Adams destroyers, a missile firing range, development of a submarine base and support facilities and provision of a submarine rescue vessel, replacement of harbour support craft and fleet boats, and modernization of Wessex helicopters. The Navy personnel requirement by June 1968 is 16,990. The Navy Emergency Reserve has been raised with a planned strength of 2,000 and enlistment is proceeding.

Army. The Regular Army is to be increased to an effective strength of 35,000 and a total strength of 40,000 by 1967. This will be achieved by the call-up of young men in their twentieth year at the rate of 8,400 per annum for compulsory selective service, in addition to voluntary enlistment. Selective service trainees are required to serve for two years full time with the Regular Army followed by three years in the Reserve, and are liable for service overseas. The field force organization is being expanded with emphasis on a substantial increase in the combat elements and high priority logistic units. More infantry battalions are being provided in a division. Seven battalions have already been raised and the eighth battalion is to be raised in the latter half of 1966. The new divisional re-organization is designed to give greater flexibility to meet requirements for cold and limited war situations, to improve further the Army's air mobility and to obtain maximum value from the increased availability of air transport support. A major formation is being located in the Townsville area in North Queensland. The target strength of the Citizen Military Forces is 35,000, and additional battalions have been raised in accordance with approved changes in the organization. The Regular Army Emergency Reserve with a planned strength of 4,000 has been raised and enlistment is proceeding. The Pacific Islands Regiment is being increased to three battalions with a total strength of some 3,500 by June 1968. In order to provide for the increased strength of the Army, major accommodation programmes are being undertaken in Papua/New Guinea and at Puckapunyal, Enoggera, Holsworthy, and Townsville.

Expenditure on Army equipment has been planned at a substantially higher level of \$150 million during the period 1965-66 to 1967-68. Of this, \$100 million is being spent in buying additional equipment similar to that already in service or on order. The remainder is to be used to purchase new equipment such as low level anti-aircraft weapons, air portable armoured

fighting vehicles, new artillery and infantry weapons, and combat surveillance equipment. Seventeen Sioux helicopters were delivered in 1965 and, together with the purchase of seven additional Caribou aircraft and twelve C130E Hercules heavy transport aircraft for the R.A.A.F., form part of the continuing programme for improving the tactical mobility of the Army.

Air Force. The operational units of the Royal Australian Air Force comprise three bomber squadrons, five fighter squadrons, two maritime reconnaissance squadrons, three transport squadrons, one surface-to-air missile squadron, two utility helicopter squadrons, and three control and reporting radar units. The fighter squadrons are being re-equipped with the supersonic Mirage III-O jet fighter, of which 100 have been ordered. Deliveries from combined Australian-French production have been coming forward since early 1964 at the scheduled rate. Twenty-four F111A strike reconnaissance aircraft have been ordered from the United States of America to replace the Canberra bombers, and deliveries are scheduled to commence in 1968. Twenty-five Caribou short take-off and landing transport aircraft have been delivered. Twelve C130E Hercules aircraft have been ordered from the United States for an additional medium range transport squadron. These are to be delivered over the latter half of 1966. Ten Orion P3B aircraft are to be ordered in 1966 to replace the squadron of P2E Neptune maritime reconnaissance aircraft. Seventy-five Macchi all-through jet trainers have been ordered. The initial batch of the aircraft are to be imported from Italy and the balance assembled in Australia. A further order for thirty-three aircraft is to be placed in later years. Ten dual Mirage training aircraft have been ordered, and eight HS748 aircraft are being obtained from the United Kingdom for navigational and radio training purposes. Seven new V.L.P. aircraft have been ordered, comprising two HS748 and two BAC 111 aircraft from the United Kingdom and three Mystere 20 aircraft from France. Contracts have been arranged for the supply of two new control and reporting units from the United Kingdom. The modernization of a third unit is in the planning stages. A network of modern operational airfields has been established and is being extended. This includes a second airfield in the Northern Territory at Tindal; construction of a new airfield at Boram near Wewak in New Guinea; the rehabilitation of the old wartime airfield at Nadzab and development of the airfield at Daru and other smaller airstrips located between Daru and Boram. The airfields at Learmonth near North West Cape in Western Australia and at Cocos Island are also to be developed. The number of personnel required for the operation of the R.A.A.F. by June 1968 is 21,000. In addition, the Air Force Emergency Force with a planned strength of 1,300 has been raised, and enlistment is proceeding.

Research and development. In this field Australia is making its principal contribution through the Long Range Weapons Project which is a joint effort with the United Kingdom. Australia also participates in the European Launcher Development Organization and is associated with the United States in many space and defence projects. The Australian executive authority in these matters is the Department of Supply.

Defence expenditure

Details of defence expenditure for 1964-65 and the allocation of the defence vote for 1965-66 are set out in the following table.

DEFENCE EXPENDITURE, 1964-65 AND DEFENCE VOTE, 1965-66
(\$'000)

Service or department	Maintenance, aid pro- grammes, etc.	Capital material requirements, machinery, plant and equipment	Capital buildings, works and acquisition of sites	Total expenditure
DEFENCE EXPENDITURE, 1964-65				
Defence	5,852	161	294	6,307
Navy	86,615	44,230	5,163	136,008
Army	145,236	36,312	18,413	199,961
Air	110,984	60,601	14,345	185,930
Supply	55,543	6,269	4,932	66,744
Other	13,690	342	..	14,032
Total	417,920	147,915	43,147	608,982

DEFENCE EXPENDITURE, 1964-65 AND DEFENCE VOTE, 1965-66—*continued*
(\$'000)

Service or department	Maintenance, aid pro- grammes, etc.	Capital material requirements, machinery, plant and equipment	Capital buildings, works and acquisition of sites	Total expenditure
DEFENCE VOTE, 1965-66				
Defence	6,947	2,017	182	9,146
Navy	100,702	82,328	7,904	190,934
Army	173,476	41,322	43,034	257,832
Air	124,568	78,984	13,746	217,298
Supply	58,666	8,510	5,294	72,470
Other	23,697	341	124	24,162
Total	488,056	213,502	70,284	771,842

Logistic arrangement with United States Government

A logistic arrangement has been agreed with the United States Government in respect of Australian equipment purchases during the programme period up to 30 June 1968. This arrangement is in effect a 'package deal' covering all the items required instead of negotiating each separate purchase as it arises, and by this method Australia has obtained more advantageous financial terms together with assurances of better delivery dates to meet our requirements. Under this arrangement, instead of paying for the equipment roughly in line with deliveries, the Government is enabled to spread payments over an extended period, and this will mean reduction in defence expenditure on equipment in 1966-67 and 1967-68. Deferment of payments to later years will cause a reduction in the currently approved programme of defence expenditure in 1966-67.

Personnel strengths

The personnel strengths of the Services at 31 March 1966 are shown in the following table.

PERSONNEL STRENGTHS: SERVICES, 31 MARCH 1966

Category	Navy	Army	Air Force	Total
Permanent Forces . . .	14,483	(a)30,455	18,809	63,747
Emergency Reserves . . .	673	584	149	1,406
Citizen Forces	3,741	30,747	870	35,358
Total Forces	18,897	61,786	19,828	100,511

(a) Excludes 1,613 Pacific Islanders.

Changes in defence legislation

Under amendments made to defence legislation in 1964* the Citizen and Reserve Forces may be called out by proclamation for continuous full-time service in a 'Time of Defence Emergency'. The particular circumstances giving rise to the proclamation of a time of defence emergency could be varied, but would occur in a situation where the Regular Forces needed the full-time support of the Citizen and Reserve Forces in hostilities short of general war.

The legislation also provided for the establishment of volunteer Emergency Reserves for the three Services. These Reserves provide a ready means of supplementing and reinforcing operational units and may be called out for continuous full-time service when the Governor-General considers it desirable to do so.

Provision was made in new defence legislation enacted in 1965 for the inclusion in the Permanent Military Forces of national servicemen who are obliged under the National Service Act as amended in 1964 and 1965 to render two years continuous full-time service in the Regular

* Air Force Act 1964, Defence Act 1964, National Service Act 1964, and Naval Defence Act 1964.

Army Supplement and three years part-time service in the Regular Army Reserve. The amendment also provided for extension of the liability to render continuous full-time service in time of defence emergency and in time of war. National Servicemen in common with all members of the Defence Force may be required to serve either within or beyond the territorial limits of Australia.

The amending legislation repealed the former provisions of the Defence Act under which persons called up for compulsory service in the Citizen Military Forces in time of war were not required to serve beyond the territorial limits of Australia unless they volunteered to do so. Liability for overseas service became mandatory for all persons called up for service in the Defence Force in time of war. The war-time powers of call-up for compulsory service were extended to apply to service in the Navy and Air Force as well as in the Army. New provisions dealing with registration, allotment and exemption from compulsory service in time of war were also enacted.

Australian forces serving overseas

Australia has participated with the United Kingdom and New Zealand in the Commonwealth Strategic Reserve in Malaya since it was first established in 1955. The strength of the Australian component normally serving with the Reserve is as follows:—Navy—two destroyers or frigates, with an annual visit by an aircraft carrier; Army—one infantry battalion and supporting units; Air Force—one light bomber squadron, two fighter squadrons and supporting units. At the request of the Federation of Malaysia, the Strategic Reserve continues to be stationed in Malaya to assist in border security operations against the communist terrorists. The Australian Government has also agreed, following a request by the Malaysian Government, to provide additional forces to the Strategic Reserve to assist Malaysian and British forces in the defence of Malaysia's territorial and political independence. Australian forces are providing assistance in countering infiltration of insurgents into Malaysian territory and for engineering construction in the Borneo States, and some air transport and anti-aircraft defence support. In January 1965 the Government decided that the Australian battalion in the Strategic Reserve should be made available for service in Borneo in rotation with other battalions. A Special Air Services Squadron has also been sent from Australia for service in Malaysia, including Borneo.

In pursuance of its obligations under the SEATO Treaty, at the invitation of the Government of Thailand, Australia deployed to Thailand a squadron of Sabre fighter aircraft which is an integral part of the air defence system for that country.

In response to an invitation of the Government of South Vietnam a team of Australian Army advisers has been provided since 1962 to assist in training Vietnamese in jungle warfare, village defence and related activities. The present strength of the team is 100. A detachment of six Caribou transport aircraft, together with the R.A.A.F. personnel required to fly and maintain them, was provided in 1964. In April 1965 the Australian Government also agreed to a request from the South Vietnamese Government to deploy an Australian battalion and supporting elements for combat service. A further 350 support troops were contributed in August 1965 to bring the Army combat force up to a battalion group. In consultation with our allies and at the request of the Government of South Vietnam the Government decided in March 1966 to treble the Australian contribution by providing a self-contained Australian task force of some 4,500 men under Australian command. The task force contains, in addition to its headquarters, two infantry battalions, a Special Air Services Squadron and a substantial force of combat and logistic support units. To provide close helicopter support the task force includes a flight of eight R.A.A.F. Iroquois helicopters. Provision of the flight of Caribou aircraft and of the team of Army advisers will continue.

Defence support aid

In support of Australia's strategic policy of contributing to the common defence of south-east Asia the Government provides substantial financial aid to our Asian allies in the form both of direct defence assistance to support the armed forces of these countries and to increase their defence capability and of civil aid and technical assistance.

Under this programme assistance to the extent of \$2,320,000 will be provided for South Vietnam, Thailand, Pakistan, and the Philippines during 1965-66. This will include material assistance, the training of service and civilian personnel both in their home countries and in Australia and, in the case of South Vietnam, special aid in the form of the provision of surgical teams to staff surgical blocks at the Long Xuyen and Bien Hoa hospitals, an engineering team to carry out a water supply project at Bien Hoa, the printing of school text books, and the supply of galvanized iron for housing of Vietnamese servicemen and dependants.

Malaysia is also being further assisted to strengthen its defence capability by the extension of the \$6 million aid programme commenced in 1965. Additional aid to be given to Malaysia will total about \$19 million up to 31 December 1967. This will take the form of ammunition, military vehicles, weapons, small craft, engineer equipment, and general stores. Malaysian servicemen will continue to be trained in Australia, and the number of Australian servicemen seconded to Malaysia will be increased.

Provision of defence support aid to India and Pakistan is being kept under review in the light of the situation in the area.

Naval defence

Prior to 1901, naval defence systems were organized under the State Governments. Information regarding these systems is given in Year Book No. 2, page 1084. An outline of the development of Australian naval policy is given in Year Books No. 3, page 1060, and No. 12, page 1012. An account appears in Year Book No. 15, pages 921-3, of the building of the Australian Navy, its costs, the compact with the Imperial Government, and other details. The growth and the activities of the Royal Australian Navy during the 1939-45 War are shown in Year Book No. 36, pages 1023-7.

Under the provisions of the Commonwealth of Australia Constitution Act the Minister of State for the Navy administers the Department of the Navy. Under the *Naval Defence Act 1910-1964* the Royal Australian Navy is administered by the Naval Board. The Naval Board consists of the Minister as Chairman, four Naval Members and the Secretary, Department of the Navy.

Strong links with the Royal Navy are maintained by a constant exchange of officers for extended tours of duty and by a full exchange of information and ideas. A liaison staff is maintained by the Royal Australian Navy in London and by the Royal Navy in Australia. Advanced training and staff courses in the United Kingdom are provided by the Royal Navy for Royal Australian Navy officers. A liaison staff is also maintained by the Royal Australian Navy in Washington, and a comprehensive exchange of information is provided by this link. Staff courses in the United States are also attended by officers of the Royal Australian Navy.

Ships of the Royal Australian Navy

In commission, March 1966: *Melbourne*—aircraft carrier; *Sydney*—fast troop transport; *Supply*—fast fleet replenishment tanker; *Vampire*, *Vendetta*, *Duchess*, and *Anzac*—destroyers; *Perth* and *Hobart*—guided missile destroyers; *Stuart*, *Parramatta*, *Derwent* and *Yarra*—escort ships; *Diamantina*—training and oceanographic ship; *Hawk*, *Gull*, *Ibis*, *Teal*, *Curlew*, and *Snipe*—minesweepers; *Kimbla*—trials ship and boom defence vessel; *Bass* and *Banks*—general purpose vessels; *Moresby* and *Paluma*—survey vessels.

In reserve, March 1966: *Arunta* and *Tobruk*—destroyers; *Queenborough*, *Quickmatch* and *Quiberon*—escort ships; *Gascoyne*—oceanographic ship; *Kangaroo*, *Kara Kara*, *Karangi*, *Kookaburra*, and *Koala*—boom working vessels; *Sprightly* and *Emu*—fleet tugs; *Culgoa*—accommodation ship; *Castlemaine*—training vessel.

On service overseas. During the year ended March 1966 the following ships served in south-east Asian waters as units of the Commonwealth Strategic Reserve with Headquarters in Singapore: *Melbourne*, *Supply*, *Vampire*, *Vendetta*, *Duchess*, *Parramatta*, *Derwent*, *Yarra*, *Hawk*, *Gull*, *Ibis*, *Teal*, *Curlew*, and *Snipe*. H.M.A. Ships *Sydney*, *Moresby* and *Diamantina* also made visits overseas. H.M.A. Ships *Perth* and *Hobart* were commissioned in the United States of America.

Fleet Air Arm

The Fleet Air Arm of the Royal Australian Navy is maintaining two front line squadrons embarked in the operational carrier H.M.A.S. *Melbourne*. This ship is fitted with an angled deck, steam catapult and mirror deck-landing sights. Training and support squadrons for H.M.A.S. *Melbourne*'s Sea Venom jet all-weather fighter and ground attack aircraft and Gannet turbo-prop anti-submarine aircraft are based at the Naval Air Station H.M.A.S. *Albatross* at Nowra, New South Wales. Westland Wessex anti-submarine helicopters have been introduced into the Fleet Air Arm and are embarked in H.M.A.S. *Melbourne*. Training and support squadrons for the helicopters are also based at the Naval Air Station.

Ship construction and repairs

There are two naval dockyards, at Garden Island, New South Wales, and at Williamstown, Victoria. Also, the dockyard at Cockatoo Island, which is operated by the Cockatoo Docks and Engineering Company Pty. Ltd. by agreement with the Commonwealth, carries out considerable naval work. All three dockyards carry out ship refitting for the Navy.

Included in the present ship construction plan is the building of two destroyer escorts, one each at Cockatoo Island and Williamstown Dockyards, and a 15,000 ton escort maintenance ship at Cockatoo Island. Four submarines of the Oberon class are under construction in the United Kingdom. In the United States one Charles F. Adams class destroyer is being built for the Royal Australian Navy at the DeFoe Ship Building Yard. Fourteen 100-foot patrol vessels are being built by Evans Deakin and Co. Pty. Ltd., Brisbane, Queensland, and Walkers Ltd., Maryborough, Queensland (seven by each contractor). A further six patrol craft will be ordered during 1966. An escort maintenance ship is also being built in Australian shipyards and is expected to be completed in 1967. H.M.A.S. *Melbourne* is to undergo a slightly extended normal refit in 1967 and her fixed wing aircraft are to be replaced by Tracker anti-submarine aircraft and Skyhawk fighter/bomber aircraft. The Daring class destroyers *Vendetta* and *Vampire* are to be



PLATE 61

Deep space station, Island Lagoon, South Australia.

Photographs for Plates 61 and 62 by courtesy of Department of Supply.



PLATE 62

Deep space station, Tidbinbilla, Australian Capital Territory.

modernized, commencing in 1968. The anti-submarine guided weapon *Ikara*, which has been designed and developed in Australia, is to be fitted into the guided missile destroyers, the Daring class destroyers *Vendetta* and *Vampire* and the destroyer escorts.

Personnel, entry, training, women's services, reserves

Personnel. The authorized established strength of the Royal Australian Navy for 1964-65 is 15,606. At 31 March 1966 the actual strength of the Permanent Naval Forces was 1,611 officers and 12,872 sailors, while there were 3,741 in the Citizen Naval Forces.

Naval college. The Royal Australian Naval College, H.M.A.S. *Creswell*, is at Jervis Bay. The College was established to provide trained officers for the R.A.N. Junior entry to the College is at the age of fifteen to seventeen years, and senior entry at a maximum age of nineteen and a half years. Subsequent training as midshipmen and sub-lieutenants is in ships of the fleet, at universities or technical colleges and at Royal Navy training establishments in the United Kingdom. In March 1966 there were 132 cadet midshipmen under training.

Direct entry into Navy. To meet increasing requirements for officers direct entries are accepted into the Royal Australian Navy. Short service commissions of seven years are granted on completion of training as seamen, supply and secretariat or aircrew officers to suitable applicants who have completed their secondary schooling and who are over seventeen years of age and under twenty-three years of age for seamen and supply and secretariat applicants, and under twenty-four years for aircrew applicants. Other direct entries may be approved outside these age limits from persons with appropriate qualifications and experience.

Opportunities exist for university undergraduates studying medicine, dentistry or engineering to enter the R.A.N. and on successful completion of their studies to commence full-time service in the Navy. Fully qualified doctors, dentists, mechanical or electrical engineers, and instructors may also enter the R.A.N. directly if they are of the appropriate age.

Training establishments. H.M.A.S. *Cerberus* at Westernport, Victoria, is the main training establishment for adult sailors in the permanent naval forces, while several advanced training schools are established in New South Wales. The period of initial engagement for sailors varies from six years for tradesmen entry to nine or twelve years, and on completion sailors may re-engage for shorter periods up to the age of fifty.

H.M.A.S. *Nirimba* at Quakers Hill, New South Wales, is the naval school for apprentices. It provides secondary education, as well as technical training in trades, to boys aged fifteen to seventeen years. The school was established in 1956 to meet the R.A.N.'s increasing demand for highly skilled tradesmen. In March 1966 there were 643 naval artificer apprentices under training. H.M.A.S. *Leeuwin* at Fremantle, Western Australia, is the junior recruit training establishment. Entrants must be aged between fifteen and a half and sixteen and a half years. Training lasts one year and instruction is mainly academic, the remaining time being devoted to basic naval and disciplinary training. On completion of the course sailors are posted for a period of sea training, after which they proceed to technical and specialist courses. In March 1966 there were 577 junior recruits undergoing training.

Women's Services. The present Women's Royal Australian Naval Service was inaugurated in January 1951. The numbers serving in shore establishments in March 1966 were 17 officers and 564 ratings. The Royal Australian Naval Nursing Service was reconstituted in November 1964, and its strength in March 1966 was twenty-one officers.

Emergency Reserve. In November 1964 approval was given to form the Royal Australian Naval Emergency Reserve to provide a readily available source of trained manpower which may be called on for continuous full-time service. The authorized establishment of this force is 2,000 officers and sailors. Members are required to complete thirteen days training annually and are paid an annual bounty.

Citizen Naval Forces. The Citizen Naval Forces consist of the Royal Australian Naval Reserve, Royal Australian Naval Reserve (Seagoing), R.A.N. Emergency List, Royal Australian Fleet Reserve, and Royal Australian Naval Volunteer Reserve. Members of the R.A.N.R. are the training reserve of the Citizen Naval Forces. They do weekly training and thirteen days annual continuous training. Officers are commissioned and may serve until retiring age is reached. Sailors engage for periods of three years. Other reserves do not carry out part-time training, but members may volunteer for periods of annual continuous training. Special courses and service for long periods are available to selected reservists.

Military defence

A detailed historical account of the Australian defence forces prior to federation appears in Year Book No. 2, pages 1075-80. See also Year Book No. 12, page 999.

Commonwealth systems

Under the terms of the Commonwealth of Australia Constitution Act the Commonwealth took over control of defence matters in March 1901. The growth of the Commonwealth Military Forces may be considered to have taken place in a number of phases. For particulars of the phases which cover the period from the welding together of the military forces of the States into one homogeneous Army in 1902 up to the re-establishment of the Military Board and the organization of Commands after the 1939-45 War see Year Book No. 46 and earlier issues.

National Service Training was introduced in 1951 and suspended in 1959-60. In November 1964 the Government announced that National Service Training was to be re-introduced as from June 1965. The scheme provides for a period of two years full-time duty in the Regular Army followed by three years in the reserve. National Service registrants who are members of the C.M.F. or who join prior to the ballot may elect to serve in the C.M.F. for a total of five or six years, depending on length of previous service, as an alternative to full-time continuous National Service Training.

Organization

Army Headquarters is responsible for the policy and control of the Australian Military Forces. The Military Board consists of the Minister for the Army, President; the Chief of the General Staff; the Adjutant-General; the Quartermaster-General; the Master-General of the Ordnance; the Deputy Chief of the General Staff; the Citizen Military Forces Member; and the Secretary, Department of the Army. After the 1939-45 War Command Headquarters were established to implement Army Headquarters policy and to command and administer those units placed under their authority. Command Headquarters are established in the capital cities of Australia and Papua-New Guinea. The geographic extent of Commands is as follows.

Northern Command—the State of Queensland and a small part of northern New South Wales.

Eastern Command—the State of New South Wales, less those parts included in Northern, Southern and Central Commands.

Southern Command—the State of Victoria and part of southern New South Wales.

Central Command—the State of South Australia, plus a portion of south-western New South Wales.

Western Command—the State of Western Australia.

Tasmania Command—the State of Tasmania.

Northern Territory Command—the Northern Territory.

Papua-New Guinea Command—the Territory of Papua-New Guinea.

The Army is divided into the Field Force, Forces in Papua-New Guinea and the Australian Support Area, with both Regular and Citizen Military Forces elements in each. The basic formation of the Field Force is the division, which consists of nine infantry battalions with supporting arms and services units. Within the division three task force headquarters can command varying combinations of divisional units. As at 31 March 1966 the substantial parts of the combat elements of one Regular and two Citizen Military Forces divisions had been raised, together with logistic support units. The Regular element of the Forces in Papua-New Guinea consists of two battalions of the Pacific Islands Regiment with a number of supporting units. An infantry battalion forms the major Citizen Military Force element. The Australian Support Area provides the training, administrative and command structure on the mainland.

As at 31 March 1966 units of the Regular Force were deployed overseas as follows. In Malaysia a battalion group was serving as part of the British Commonwealth Far East Strategic Reserve, while an anti-aircraft battery, an engineer construction group and a special air service company were serving at the invitation of the Malaysian Government. In Vietnam a battalion group was serving at the invitation of the Government of Vietnam. This force is to be built up to a Task Force of two battalions with supporting units, including aircraft support to be provided by the Royal Australian Air Force.

Personnel, training, women's services, cadets

Personnel. The effective strength at 31 March 1966 was: Australian Regular Army (including 1,613 Pacific Islanders and 813 Women's Services), 32,068; Citizen Military Forces, 30,747.

Staff College. Until 1938 the training of staff officers was carried out in the various Military Districts throughout Australia, except in cases where officers were selected from time to time to attend courses abroad. In 1938 an Australian Command and Staff School, located in the original Officers' Mess at Victoria Barracks, Sydney, was established. Between 1939 and 1945 the training of staff officers was carried out under varying conditions by different schools in accordance with the changing needs of the war.

Early in 1946 the Staff School (Australia) was established at Seymour, Victoria, and redesignated the Staff College in conformity with other Commonwealth training establishments for training officers for command and staff appointments. The College was later moved to Queenscliff, Victoria, where it is at present situated. The course is held annually and is of twelve months duration. The normal intake is sixty-six students, and on successfully completing the course an officer is awarded the symbol 'psc'. The course is designed to train selected officers for appointments in all branches of the staff in peace and war and to prepare them to assume, after experience, command and higher staff appointments.

Included in the 1967 course will be students from the United Kingdom, Canada, New Zealand, India, United States of America, Thailand, Malaysia, and the Philippines. Vacancies on each course are reserved also for officers who may be nominated by the Royal Australian Navy, the Royal Australian Air Force and the Commonwealth Public Service.

In order to ensure common standards in tactical doctrine and staff and command training throughout the Commonwealth of Nations liaison is maintained with other Staff Colleges, and to this end there is also a reciprocal exchange of instructors between the United Kingdom and Australia. An instructor is also provided by New Zealand.

Royal Military College. The Royal Military College was established in 1911 at Duntroon in the Australian Capital Territory for the purpose of providing trained officers for the Army. The conditions of entry are laid down in the Royal Military College Regulations. The length of the normal course is four years. While at the College Staff Cadets are wholly maintained, and, in addition, receive payment increasing with each year of the course. The course of instruction is organized into military and civil departments, and instruction is given by officers of the Army and academic staff. On graduation cadets are appointed lieutenants in the Australian Regular Army. The College also trains New Zealand cadets for commissions in the New Zealand Permanent Forces.

Officer Cadet School. The Officer Cadet School was established in 1951 at Portsea, Victoria, for the purpose of speeding up the production of junior regimental officers for the Australian Regular Army. Serving members of the Australian Regular Army, the Citizen Military Forces and civilians between the ages of eighteen and a half and twenty-two and a half years are eligible to apply for entrance. A special entry provides for candidates up to twenty-four and a half years. The course is of forty-four weeks' duration, and on graduation cadets are appointed second-lieutenants in the Australian Regular Army. Graduates normally proceed to further training at the Army School of the Arm and Service to which they have been allotted before being posted to regimental duties.

Officer Training Unit. An Officer Training Unit has been established at Scheyville, New South Wales, and is responsible for the training of National Service officers.

Women's Royal Australian Army Corps School. The W.R.A.A.C. School, established in 1952 at Mildura, Victoria, moved to Mosman, New South Wales, in 1958. It has three wings, one whose primary task is the training of officer cadets for the W.R.A.A.C., one for the training of non-commissioned officers at all levels and for other special courses and one which is a basic training wing. The officer cadets are selected from eligible applicants, who may be serving members between nineteen and a half and thirty-two years of age, or civilians between twenty-one and thirty years of age. The course is of six months' duration and on graduation cadets are appointed lieutenants in the Women's Royal Australian Army Corps.

Army Apprentices' School. The Army Apprentices' School was opened in 1948 at Balcombe, Victoria, with the aim of training youths as skilled tradesmen for the Australian Regular Army and to form a background for an Army career with prospects of promotion. The course is open to boys between the ages of fifteen and seventeen years and provides training in a number of highly skilled trades. A three-year course of intensive theoretical and practical work at the Apprentices' School is followed by one year in an appropriate Army workshop or technical unit. At the end of their third year boys are given their Army trade test and also take the Victorian Apprenticeship Commission's final grade public examinations, which ensures that they will be accepted as qualified tradesmen in civil life when they eventually leave the Army. In addition to trade training the Apprentices' School provides general educational facilities up to the School Leaving Standard.

Other Schools. Army Schools have been established for the major Arms and Services for the purpose of training officers and other ranks in the up-to-date techniques of their own Arm or Service, to qualify them for promotion requirements and to produce trained instructors. Courses at Army Schools are conducted for members of both the Australian Army and the Citizen Military Forces.

The following Army Schools have been established: Jungle Training Centre, Armoured Centre, School of Artillery, School of Military Engineering, Transportation Centre, School of Military Survey, School of Signals, Infantry Centre, Army Intelligence Centre, Royal Australian Army Service Corps Centre, Royal Australian Army Medical Corps School of Army Health,

Royal Australian Army Ordnance Corps Centre, Royal Australian Electrical and Mechanical Engineers' Training Centre, School of Music, Air Support Unit (Army Component), and Air Movement Training and Development Unit (Army Component).

Women's Services. In July 1950 approval was given for the enlistment of women into the Australian Regular Army on a limited scale. Enlistment commenced into the Royal Australian Army Nursing Service in November 1950 and into the Australian Women's Army Corps early in 1951. In February 1951 the Royal Australian Army Nursing Service became a Corps and was designated the Royal Australian Army Nursing Corps (R.A.A.N.C.). During June 1951 the Australian Women's Army Corps was redesignated the Women's Royal Australian Army Corps (W.R.A.A.C.). The Women's Services in the Australian Regular Army now comprise two Corps only, the Royal Australian Army Nursing Corps and the Women's Royal Australian Army Corps.

Women's Services are incorporated in the Citizen Military Forces, and one company of the Women's Royal Australian Army Corps is located in each Command excluding Northern Territory Command and Papua-New Guinea Command. Companies of the Royal Australian Nursing Corps are located in each Command excluding Northern Territory Command and Papua-New Guinea Command.

Australian Cadet Corps. The Australian Cadet Corps is a voluntary organization. It serves as a training ground to provide, to some extent, the future officers and non-commissioned officers of the Australian Military Forces, and, as such, occupies a foremost position in the scheme of national defence. The Australian Cadet Corps, however, does not form part of the Australian Military Forces. School Cadet units are raised at educational establishments throughout the Commonwealth and Papua and New Guinea, except in the Northern Territory. The minimum age for enrolment is the year in which the applicant reaches the age of fourteen years, and cadets, who, in the large majority of schools receive a free issue of A.M.F. pattern uniform, may remain in the Cadet Corps until they cease to be pupils of the educational establishments concerned. A few units retain their own pattern school uniform and are not issued with A.M.F. pattern uniforms. Provision is made for the appointment of officers, cadet under-officers, warrant and non-commissioned officers on an authorized establishment scale from within school units. School Cadet units may be, and in many cases are, affiliated with Citizen Military Force units. The establishment of the Corps is 46,566 all ranks, and at 31 March 1966 comprised 335 School Cadet units with a posted strength of 42,265, all ranks.

Air defence

A statement regarding the preliminary steps taken in connection with the development of air defence appears in Year Book No. 18, page 610, and one on the expansion and development and type of operations of the Royal Australian Air Force during the 1939-45 War in Year Book No. 36, page 1027. Details of the current defence expansion as it affects the R.A.A.F. were outlined by the Prime Minister in his speech in the House of Representatives on 8 November 1965.

Higher organization

The Air Board is responsible to the Minister for Air for the control, organization and administration of the Royal Australian Air Force and is constituted as follows: Chief of the Air Staff, Air Member for Personnel, Air Member for Supply and Equipment, Air Member for Technical Services, and the Secretary, Department of Air.

The Air Board exercises command and control over R.A.A.F. units in Australia through two commands, Operational Command and Support Command. The guiding principles of the command organization within Australia are to decentralize day-to-day operating activities as far as possible and to streamline the force and make it as efficient as possible. The operational units overseas, working within the broad directives issued by the Air Board, comprise the R.A.A.F. component of the British Commonwealth Strategic Reserve located at Butterworth in Malaysia, a unit in Thailand and the R.A.A.F. component of the Australian task force in South Vietnam.

The members of the Air Board and their staffs are located at the Department of Air in Canberra. A R.A.A.F. representative is located in London and Air Attachés are located in Djakarta, Saigon, Paris, and Washington. *Operational Command* is responsible for the command of operational units and the conduct of their operations within Australia and its territories. *Support Command* is responsible for the recruitment and training of personnel, and the supply and maintenance of service equipment.

Organization of units

Bases. Each command is established with the units necessary to carry out its allotted function. There is no fixed rule in relation to the number and types of units within each command as this depends upon the nature of its present and future responsibilities.

Where possible, units having similar functions or requiring similar facilities are located together and the geographical locations are known as bases. While in general only units belonging to one command will be located on a particular base, it is sometimes necessary to locate units of both commands at one base.

Formations—comprising a headquarters unit to control the activities of a number of units at one location; each formation has a base squadron which provides common services to all units at the location.

Flying squadrons—bomber, fighter, transport, helicopter, and maritime reconnaissance squadrons which undertake the operational flying and, in conjunction with operational conversion units, the operational flying training commitments of the R.A.A.F.

Operational conversion units—specializing in operational conversion training of aircrew for the bomber and fighter squadrons.

Aircraft depots—specializing in major overhaul, etc. of aircraft and equipment and relieving flying units of these commitments.

Stores depots—centrally located depots to which stores and equipment ordered by the R.A.A.F. are delivered for distribution to units.

Flying, ground training, navigation, and radio training units—schools specializing in the aircrew and ground staff training required by the R.A.A.F.

Airfield construction squadron—specializing in the construction of R.A.A.F. aerodromes and associated buildings and works services.

Royal Australian Air Force Academy—the training college for officer cadet entrants to the R.A.A.F.

Telecommunications units—responsible for the communications services of the R.A.A.F.

R.A.A.F. Staff College—trains specially selected R.A.A.F. officers for higher staff and command posts.

Aircraft

The R.A.A.F.'s strike force of Canberra aircraft will be replaced in 1968 by the F111A, and by this stage the Avon-Sabre fighter squadrons will have completed conversion to the Mirage III-O aircraft. Transport aircraft currently flown are Caribou, Dakota, Hercules, Metropolitans, and Viscount, with BAC 111, Mystere 20 and a further squadron of Hercules on order. Both maritime reconnaissance squadrons operate Neptune aircraft at present, but the older aircraft are to be phased out of service with the introduction of the Orion in the near future. Two helicopter squadrons operate the Iroquois. Aircraft used for training are the Winjeel, Vampire, Dakota, Sabre, Canberra, and Mirage. Macchi and HS748 training aircraft are on order.

Personnel, reserve, women's services

At 1 April 1966 the authorized Permanent Air Force establishment was 20,117, and the Citizen Air Force, 1,081; the enlisted strength was Permanent Air Force 18,809 and Citizen Air Force 870; while the strength of the General Reserve was 6,262. The preceding Permanent Air Force figures include the Women's Royal Australian Air Force, which has an establishment of 967 and strength of 861, and the R.A.A.F. Nursing Service with an establishment of 87 and strength of 81.

Department of Supply

For information relating to the creation of the Department of Supply and its development up to 1959 see Year Book No. 51, page 1204, and earlier issues. On 18 December 1959 the Department assumed responsibility for the operation and management of space tracking stations in Australia on behalf of the United States National Aeronautics and Space Administration. On 29 March 1962 Australia became a foundation member of the European Launcher Development Organization, and the Department accepted responsibility for the test firing of the launching rocket for that Organization's experimental satellite, using the facilities of the Woomera Rocket Range.

Functions of Department

The functions of the Department of Supply include the following.

Defence research and development, including the operation of the Joint United Kingdom—Australia Weapons Research Project, and Australian research and development through the Weapons Research Establishment, the Aeronautical Research Laboratories, the Defence Standards Laboratories, and associated establishments.

Manufacture, acquisition, provision, and supply of munitions (including aircraft) and miscellaneous goods and services required by the defence forces.

Arrangement of contracts for the supply of goods and the performance of services.

Operation and management of factories, workshops and undertakings concerned in the production of munitions (including aircraft), clothing, canvas-ware, and other defence goods.

Operation and management of space tracking stations in Australia on behalf of the United States National Aeronautics and Space Administration.

Test firing of the launching rocket for the European Launcher Development Organization's experimental satellite, using the facilities of the Woomera Rocket Range.

Acquisition, maintenance and disposal of strategic materials.

Planning and establishment of manufacturing facilities for the production of munitions and other defence goods.

Investigation and development of Australian sources of supply in connection with defence.

Sale or disposal of surplus Commonwealth property other than land or buildings.

Provision of Commonwealth transport facilities outside the Australian Capital Territory and the Northern Territory.

Provision and control of stores required for or in connection with matters administered by the Department of Supply and general storage for other Departments as required.

Provision of security services within the Department.

Arrangements for ascertaining costs and the control and limitation of profits in connection with the production of munitions and other defence goods.

The Minister for Supply administers the *Supply and Development Act 1939-1948*, except insofar as it concerns the building (see also the chapter Transport and Communication), repair and maintenance of merchant ships and the building, extension, alteration, repair, and maintenance of shipyards, drydocking and repair facilities for merchant ships.

Research and Development Division

The Research and Development Division, which is under the control of the Chief Scientist, is responsible for research and scientific development in relation to war *matériel*, including the operation of the Joint United Kingdom—Australia Weapons Research Project. The Chief Scientist is also the Chairman of the Joint Project Board, which is responsible for the administration of the Joint Project undertaking. The headquarters of the Division is situated in Melbourne, and the following establishments are included in the Division: (a) Weapons Research Establishment, Salisbury, South Australia; (b) Defence Standards Laboratories, Maribyrnong, Victoria, Finsbury, South Australia, and Alexandria, New South Wales; (c) Aeronautical Research Laboratories, Fishermen's Bend, Victoria.

Weapons Research Establishment, Salisbury, South Australia

This establishment, which occupies an area of about six square miles, includes Edinburgh Airfield, where accommodation is provided for a unit of the R.A.A.F. which carries out the experimental and other flying required. Extensive facilities have been provided for branches of British firms which have contracted with the British Ministry of Aviation to develop weapons systems or components.

The Establishment has four main sections, namely the Trials Wing, the Space Physics Wing, the Weapons Research and Development Wing, and the Engineering Wing. The Trials Wing is concerned with the operation, development and instrumentation of the Woomera Range, also the planning, execution and assessment of trials. The Space Physics Wing undertakes the operation of United States satellite and space tracking stations throughout Australia and conducts research and development in support of the Range, including investigations into the characteristics of the upper atmosphere using sounding rockets. The Weapons Research and Development Wing is concerned primarily with Australian-initiated defence research, but assistance is also given with some phases of the Joint Project programme. The Engineering Wing provides the design and manufacturing effort required to support the work of the Establishment and the Range.

Testing ranges have been established at Woomera, which is approximately 280 miles north-west of Adelaide. A township, together with modern amenities such as hospital, school, kindergarten, community store, swimming pool, and all sporting facilities, has been built at Woomera to accommodate the staff and their families. The population is approximately 5,300.

European Launcher Development Organization (ELDO)

By virtue of the major facilities at Woomera for launching space vehicles and the associated technical skills, Australia has become a member of ELDO, which has been established with the object of developing a launching vehicle for placing satellites in orbit for peaceful purposes. Other members of ELDO are Britain, Belgium, the Federal Republic of Germany, France, Italy, and the Netherlands. Test firings of the ELDO rocket will continue at Woomera until 1969.

United States space projects.

Agreements have been signed by the Australian and United States Governments for a co-operative programme for the establishment and operation in Australia of space vehicle tracking stations. The agencies for the Australian and American Governments are the Department of Supply and the National Aeronautics and Space Administration (NASA) respectively.

As part of the world wide network supporting NASA's space programme the stations are designed to track spacecraft in their orbits around the earth or on their journey into space, to receive telemetered data from the vehicle and to issue radio commands controlling the vehicle's manoeuvres. The Department of Supply is responsible for managing, staffing and operating the stations on behalf of NASA. The stations which are now in operation or under construction are at:

Island Lagoon near Woomera (deep space probes and optical tracking of scientific satellites, *see* plate 61);

Carnarvon in Western Australia (manned space flights and scientific satellites);

Tidbinbilla in the A.C.T. (deep space probes, *see* plate 62);

Orroral Valley in the A.C.T. (scientific satellites);

Honeysuckle Creek in the A.C.T. (manned space flights, particularly the 'man on the moon' Apollo project);

Cooby Creek near Toowoomba, Queensland (Application Technology Satellite).

An extensive communications system links the tracking stations with the control centres in the United States.

The orbits or courses of spacecraft determine the area in which tracking stations can be located. Within the area geographical and physical environment and protection from electrical noise determine the optimum location of the station. Being a large land mass in the Southern Hemisphere, diametrically opposite the United States, Australia is ideally situated for support of the United States space programme.

The initial stations near Woomera were managed by the Department of Supply's Weapons Research Establishment and manned by its personnel. With the new tracking stations industry has been brought into closer contact with space activities, contracts having been placed for their operation and maintenance by firms from industry. These contractors are SpaceTrack Pty. Ltd. (Tidbinbilla), Amalgamated Wireless (A'asia) Ltd. (Carnarvon), E.M.I. Electronics (Australia) Pty. Ltd. (Orroral Valley), Standard Telephones and Cables Pty. Ltd. (Honeysuckle Creek), and Amalgamated Wireless (A'asia) Ltd. (Cooby Creek). These firms are responsible for the operation and maintenance of the stations, subject to on-site directions of the Department of Supply Station Director.

NASA'S space projects requiring Australian participation are as follows.

Manned space flights

Project Mercury—initial manned satellites (now completed).

Project Gemini—extended orbits by two-man spacecraft: development of rendezvous techniques for two spacecraft.

Project Apollo—landing of men on moon and their return to earth.

Scientific and application satellites

Smaller single experiment satellites (Explorers, etc.).

Large multiple experiment scientific satellites (Orbiting Geophysical Observatories; Orbiting Astronomical Observatories, etc.)

Application satellites for communication (Echo; Applications Technology Satellite) meteorology (Tiros; Nimbus), etc.

Flight testing of technological experiments for application in communications, gravity gradient, meteorology, navigation, radio propagation, etc.

Deep space probes

Ranger—hard landing on moon; T.V. pictures of moon's surface.

Surveyor—soft landing of instrumented package on moon including T.V. cameras.

Lunar Orbiter—orbiting of moon.

Mariner—probes to Mars, Venus, etc.

Defence Standards Laboratories

The broad function of these Laboratories is to provide a scientific service to the Armed Services, civilian defence and the factories, branches and establishments of the Department of Supply. It also provides trained groups in specialist fields for which there is no counterpart elsewhere in Australia. This service covers problems arising in the provision and use of defence matériel and is given generally within the fields of chemistry, physics, metallurgy, and engineering and, to a limited extent, in those of bio-chemistry and physiology.

Aeronautical Research Laboratories

The work of these Laboratories lies in the fields of: (a) aeronautics; (b) guided missiles; and (c) branches of engineering appropriate to the special facilities, resources or experience resulting from (a) and (b). In particular it comprises aerodynamics, including wind tunnel, free flight model and actual flight testing; structures of aircraft and missiles; metals and other materials used in the construction of airframes and engines; engines of the air-breathing type used for the propulsion of aircraft or missiles; human engineering studies relating to the operation of aircraft and guided missiles; research and development related to Australian-initiated guided missiles; and operational assessment studies on devices and techniques employed or proposed for the defence of Australia.

Production of munitions

The Department is responsible for the production of a wide range of munitions required by the Armed Services. Production is carried out substantially in Government factories, although some orders, mainly for components, are placed with private industry.

The following Government factories are currently in operation: Ammunition—Footscray, Victoria; Explosives and Filling—Albion and Maribyrnong, Victoria; Mulwala and St. Marys, New South Wales; Ordnance—Maribyrnong, Bendigo and Port Melbourne, Victoria; Small Arms—Lithgow, New South Wales; Clothing—South Melbourne and Brunswick, Victoria.

The Ammunition Factory produces the complete round of small arms ammunition and also components for larger calibre gun ammunition, including empty cartridge cases, electronic and mechanical fuses, and primers. The Explosives Factories produce the various types of explosive compositions and propellants required for gun ammunition, rockets and guided missiles. The Filling Factory at St. Marys fills and assembles into complete rounds of ammunition (other than small arms ammunition) the empty components and materials supplied by the other munitions factories and by private industry.

The Ordnance Factories at Maribyrnong and Bendigo are equipped to produce heavy ordnance equipment, such as naval guns and gun mountings; large turbine gears; steel shell bodies; empty rocket motors for guided missiles; trailers and tank transporters; and other items requiring heavy engineering capacity. As well as work for the Services, the Bendigo Factory is producing equipment for projects of national importance, e.g. control equipment for the Snowy Mountains Hydro-electric Authority, components for marine diesel engines for Australian shipping, large heavy engineering items for the coal, cement and steel industries, and coining presses for the Royal Australian Mint.

The Port Melbourne Factory builds large marine diesel engines for the Australian ship-building industry. Major forgings and fabrications for these engines are produced at the Ordnance Factories at Maribyrnong and Bendigo. The Small Arms Factory is equipped to produce the rifles and other small arms required by the Services. Current production is the 7.62-mm. automatic rifle, for which orders have also been received from overseas, and the 9-mm. carbine, which replaces the Owen as the infantry light machine gun. The Clothing Factories make uniforms, clothing and canvas goods for the three Services and also for the Postmaster-General's Department and some other Commonwealth authorities.

Production of aircraft and guided weapons

Production both in Government factories and in industry of military types of aircraft and aero engines and of other aircraft components required by the Royal Australian Air Force is administered by the Department of Supply. Planning of capacity and the negotiations of contractual arrangements concerning aircraft modification, repair and overhaul, and for the supply of spare parts and airborne equipment for the R.A.A.F., the R.A.N. and the Army are also functions of the Department.

The following factories are operated by the Department: The Government Aircraft Factory at Fishermen's Bend and the Final Assembly Workshops and Test Airfield at Avalon, Victoria and the Airframe Repair Workshops at Parafield and Northfield, South Australia. The current aircraft production programme at the Government Aircraft Factory comprises the French Mirage supersonic fighter for the R.A.A.F. and the Jindivik radio-controlled target aircraft, which has been or is being supplied to Britain, Sweden and the United States, as well as to the Weapons Research Establishment and the Royal Australian Navy. Apart from the Government Aircraft Factory, the Commonwealth Aircraft Corporation Pty. Ltd. is the only major aircraft manufacturer in Victoria, and this company is currently producing the French Atar turbo-jet engine for the Mirage fighter and also some sections of the airframe. The corporation has also been appointed the prime contractor for the Australian production for the R.A.A.F. of the Italian Macchi jet trainer and for the production of the British Viper engine that will equip this aircraft.

Other major activities carried out in the Government factories or by various private contractors are the manufacture of airframe and engine spare parts; the overhaul, repair and modification of military aircraft and engines currently in service with the R.A.A.F., R.A.N. and Army; and the reconditioning and servicing of aircraft instruments and other ancillary equipment.

The production of the Ikara anti-submarine missile is continuing with the high level of activity at the Government Aircraft Factories at Fishermen's Bend. Production of the complete Ikara system, covering broadly the missile, motor, propellants, guidance equipment, launcher, and magazine handling equipment, is a combined effort by departmental establishments and industry directed and co-ordinated by the Department.

Planning is well-advanced towards the establishment of a facility, within the area of the St. Marys Munition Filling Factory, New South Wales, to repair and maintain the Tartar surface-to-air missile supplied by the United States for Australia's new missile destroyers. Later the facility will be expanded to cater for other Service missiles.

The Department is responsible for the technical aspects of production and procurement from local industry of telecommunications and electronic equipment for the Australian Forces and for certain other organizations such as Colombo Plan and SEATO. A wide range of these equipments is obtained from industry; some of the more important projects are the complete equipping of several major automatic telegraph relay centres for Army and Air; the local manufacture of ultra high-frequency ground station equipment for communication with Mirage and Sabre aircraft, automatic direction finders for the Macchi aircraft, remote-controlled target ranges for the Army, electronic guidance equipment for the Ikara system, and the development and production of a transistorized field transceiver for the Army.

Contracts have also been arranged for the local development of a lightweight magnetron of United States design for use in radar systems, of a high stability quartz crystal oscillator, and of other high stability electronic components such as various types of fixed and variable resistors, mica and tantalum capacitors and matched crystals.

Contract Board

Under the *Supply and Development Act 1939-1948* the Contract Board is the authority responsible for the arranging of contracts for the performance of services and the purchase of supplies for the Naval, Military and Air Forces of the Commonwealth, as well as for the Department of Supply. The Board is also responsible for the sale or disposal of all surplus or unserviceable Commonwealth goods approved for disposal. By arrangement, the Board also arranges purchases on behalf of other Commonwealth departments and authorities which desire to use its facilities.

The Contract Board meets in Melbourne and comprises representatives of the Departments of Supply, Navy, Army, and Air. The Board's administrative organization is the Contracts and Disposals Branch. In each State other than Victoria there is a District Contract Board with an administrative organization similar to that of the Contract Board. The table following shows, in respect of the Contract Board organization, the purchases and realizations from disposals for the years 1963-64 and 1964-65.

CONTRACT BOARD ORGANIZATION: PURCHASES AND REALIZATIONS FROM DISPOSALS, 1963-64 AND 1964-65 (\$'000)

State	Purchases		Realizations from disposals	
	1963-64	1964-65	1963-64	1964-65
Contract Board, Victoria .	93,534	82,632	3,319	4,171
District Contract Board—				
New South Wales . . .	14,652	18,528	2,738	2,249
Queensland	2,694	3,578	708	975
South Australia . . .	5,382	5,591	1,117	1,234
Western Australia . .	809	1,025	349	465
Tasmania	173	183	95	115
Total	117,244	111,537	8,326	9,209

Defence supply planning

The central planning authority of the Department is the Planning Branch, whose principal functions are:

- to study manufacturing capacity available for the Services' requirements in peace and war;
- to plan for and to assist in the development of additional production capacity;
- to prepare submissions on defence production preparedness to the Higher Defence Machinery;
- to plan the organization of industrial resources for defence production in war;
- to provide and administer stocks of relevant materials and reserve pools of plant equipment and other requirements needed for rapid expansion of production in the event of war;
- to prepare and advance co-ordinated production programmes against Service orders and to analyse and interpret achievement against these programmes for the information of the Department and the Services;
- to provide advisory services in the field of materials, supply and utilization to Government factories and contractors engaged in the production of munitions requirements;
- to administer the national stockpile;
- to administer oversea aid programmes allocated to the Department; and
- to undertake commercial sales.

A series of Industry Advisory Committees has been established to advise the Minister and the Department on the ability of industry to meet the Services' *matériel* requirements for mobilization and war. The Committees are: Aircraft and Guided Weapons; Chemical; Electrical; Electronics and Telecommunications; Heavy Engineering; Light Engineering; Fibres; Textiles, Clothing and Cordage; Leather and Footwear; Machine Tools and Gauges; Materials; Rubber. Members of the Committees include industrialists of wide experience and the highest ability in their chosen fields.

Stores and Transport Branch

This Branch, administered by a Board of Management and working under the direction of a General Manager, functions as the central storage authority and the central transport authority for all Commonwealth Departments. It is the authority for the arrangement of furniture removals at departmental expense in all States, but not in the Northern Territory. It has agents in Darwin. It also operates a shipping and customs section and the England-Australia bulk air freight scheme for Commonwealth Departments.

On 30 June 1965 the Branch had under its control land, buildings and works, vehicles, plant and equipment valued at \$24,132,234 and 3,180,000 sq. ft. of storage space, as well as storage facilities for large quantities of chemicals, bulk liquids and explosives.

Finance Branch

The total expenditure on Department of Supply activities during the year 1964-65 was \$127,554,000, comprising \$66,744,000 (net) from Parliamentary appropriations, and \$60,810,000 from Trust Fund Accounts. The latter included expenditure of \$13,026,000 for Stores and Transport and \$44,690,000 in Government Munitions and Aircraft Factories.

CHAPTER 28

REPATRIATION

The Repatriation Commission, established under the *Repatriation Act* 1920–1965, consists of three full-time members. It is responsible for the administration of the Repatriation Act and associated legislation, all matters of policy and the general administration and overall supervision of the Repatriation Department. The central office is in Melbourne and there is a branch office, under the control of a Deputy Commissioner, in each State.

The principal functions of the Department are: the payment of war and service pensions to eligible ex-servicemen and ex-servicewomen and their dependants; the provision of medical treatment to ex-servicemen and ex-servicewomen for injuries and illnesses caused or aggravated by their war service; the provision of medical treatment in certain circumstances to ex-servicemen and ex-servicewomen who are suffering from injuries and illnesses not caused or aggravated by war service; and the provision of medical treatment to widows and dependants of deceased ex-servicemen whose deaths are due to war service.

Benefits are provided in respect of service, not only in the 1914–18 and 1939–45 Wars, but also in the Korea and Malay operations and with the British Commonwealth Far East Strategic Reserve and the Special Overseas Forces.

Other functions of the Repatriation Department are outlined in a later section of this chapter (see page 1079).

War pensions

The first provision for the payment of war pensions to ex-servicemen and their dependants was made by the Commonwealth Parliament in the *War Pensions Act* 1914. This Act was repealed in 1920 by the *Australian Soldiers' Repatriation Act* 1920 (amended from 31 December 1950 to the Repatriation Act). The main features relating to war pensions under repatriation legislation are set out in the following paragraphs.

Eligibility for pensions

Claims for eligibility for war pensions are determined in the first instance by Repatriation Boards, of which there is one in each State of the Commonwealth. Members of women's services are eligible for pensions and other benefits, as prescribed in the Act, on the same basis as male members of the forces. Amendments to the Act in 1943 considerably widened the eligibility provisions, to the benefit, mainly, of members of the Citizen Military Forces who had not served outside Australia. These provisions are summarized as follows.

A member of the forces who served (a) outside Australia, (b) in the Territories of Australia, such as Papua and New Guinea, or (c) within Australia in circumstances which can be regarded as combat against the enemy is covered for war pension purposes in respect of incapacity or death which may result from any occurrence that happened during the period from the date of his enlistment to the date of the termination of his service in respect of that enlistment.

In other cases where a member served only in Australia, incapacity or death to be pensionable must have been attributable to service.

There is a third ground applicable to all members except those with less than six months camp service. This provides that, where a condition existed at enlistment, a pension may accrue if it is considered that the condition was aggravated by service.

If, at any time after discharge, an ex-serviceman who served in a theatre of war becomes incapacitated or dies from pulmonary tuberculosis, war pension is payable as if the incapacity or death resulted from an occurrence on service. (See also Service pensions, page 1074.) Medical treatment may also be provided.

Korea and Malaya operations. The commencement of hostilities in Korea and Malaya in 1950 made necessary the insertion in the Repatriation Act of a new Division, under the terms of which the pension provisions of the Act were extended to Australian ex-servicemen and ex-servicewomen who served or were allotted for duty in prescribed operational areas. A new Regulation was also made, in 1951, to make such service personnel eligible for almost all the benefits available under the existing Regulations applicable to members of the forces.

Repatriation (Far East Strategic Reserve) Act 1956-1964. Provision was made under this Act for Australian forces who served in South-east Asia as part of the British Commonwealth Strategic Reserve. This Act, together with Regulations made under it, gave members with Malayan service the right to many benefits available under the Repatriation Act.

Repatriation (Special Overseas Service) Act 1962-1964. This legislation provides repatriation benefits for serving members of the defence forces, the circumstances of whose service expose them to risks above the normal conditions of peace-time service. Regulations made under the Act prescribe special areas within which service qualifies for Repatriation benefits. These special areas now include Singapore, the whole of Malaysia and South Vietnam.

Rates

The main classes of war pensions are the special (T.P.I.) rate, the intermediate rate, the general rate, and the war widows' pension. These are not subject to a means test except where stated for certain classes of dependants.

The *special rate* of war pension is payable to those who are totally and permanently incapacitated and are unable to earn more than a negligible percentage of a living wage. The weekly rate is \$28.50, plus \$4.05 wife's allowance and \$1.38 for each child under sixteen years.

The *intermediate rate* of war pension, which previously applied only to certain cases of tuberculosis, was extended from 6 October 1965 to include ex-servicemen who, because of the severity of a war-caused incapacity, can only work part-time or intermittently and in consequence are unable to earn a living wage. The weekly rate is \$20.25, plus \$4.05 wife's allowance and \$1.38 for each child under sixteen years.

The *general rate* of war pension is the rate payable to those who suffer war-caused disabilities but are not thereby prevented from working, although their earning capacity may be reduced. The actual pension payable is assessed in accordance with the degree of incapacity suffered. The maximum (100 per cent) rate is \$12 a week. A wife and children under sixteen years also receive pensions at rates according to the assessed degree of incapacity of the ex-serviceman, the maximum being \$4.05 for a wife and \$1.38 for each child.

The *war widows' pension* is paid to widows of ex-servicemen who died as a result of war service and to their children under the age of sixteen years. A war widow's pension may also be paid to the widow of an ex-serviceman who was receiving, at the time of his death, the special rate of war pension or the rate payable to double amputees. The weekly rates are widow, \$12; first child, \$3.90; second and each subsequent child, \$2.75.

Other dependants of an ex-serviceman who is suffering from a disability due to war service may be granted pensions under certain circumstances. Such pensions are subject to a means test and are assessed in accordance with the degree of the ex-serviceman's incapacity. Except in the case of a widowed mother of an unmarried ex-serviceman, other dependants are required to prove dependence on the ex-serviceman.

Allowances

The following allowances are provided in addition to pension.

Domestic allowance (\$7 a week). This is paid, in addition to pension, to a widow of an ex-serviceman whose death is due to war service, if she is fifty years of age; or is permanently unemployable; or has a dependent child under the age of sixteen years, or a dependent child over sixteen years being educated or trained and not in receipt of an adequate living wage.

Attendant's allowance (maximum rate \$10.50 a week). This allowance is paid, in addition to war pension, to certain classes of seriously disabled ex-servicemen, for example, war blinded, those who are paralysed, and certain double amputees.

Clothing allowance. A clothing allowance is paid at various rates (38c to 75c a week) to an ex-serviceman who, as a result of war service, has lost an arm or a leg or, because of an injury to a limb, is required to use a surgical aid or appliance. An amount not exceeding \$19.50 in any one year is also payable to certain other war disabled ex-servicemen.

Sustenance allowance. This allowance is paid where an ex-serviceman is prevented from following his normal occupation through treatment of a war-caused disability or while undergoing medical investigation. The rate payable, where out-patient treatment is being received for a period of up to four weeks, or in-patient medical investigation is being carried out, is the same as the general (100 per cent) rate pension, less the amount of any war pension being paid.

Where an ex-serviceman is receiving in-patient treatment for a war-caused disability, is undergoing periods of essential convalescence immediately following discharge from hospital, or is prevented from following his usual occupation because of the necessity of out-patient treatment for a war-caused disability for a continuous period in excess of four weeks, a higher rate to bring the sustenance allowance up to the equivalent of the special (T.P.I.) rate is paid.

A wife, and children under sixteen years, also have pensions increased to the current general or general special rate.

Recreation transport allowance. This allowance provides transport for recreation purposes and may be paid to an ex-serviceman who, as a result of war service, suffers certain amputations of the arms or legs or is seriously disabled to the extent that his powers of locomotion are negligible.

Other allowances and general assistance. These include a guardian's allowance, re-establishment loans and allowances, funeral benefits, vocational training allowances for education and training of children, fares and allowances for loss of remunerative time in connection with medical or pension purposes, and motor vehicle allowances for seriously disabled ex-servicemen.

Appeals tribunals

The principal Act was amended as from 1 June 1929 to create tribunals to hear appeals in respect of war pensions. War Pensions Entitlement Appeal Tribunals are empowered to hear and decide any appeal by or on behalf of ex-servicemen or their dependants against decisions of a Repatriation Board or the Repatriation Commission that the incapacity or death of an ex-serviceman did not arise out of war service. Assessment Appeal Tribunals were created to hear and decide any appeal against a current assessment or a 'Nil' assessment of war pension made by a Repatriation Board or the Repatriation Commission in respect of the incapacity of an ex-serviceman which had been accepted as arising out of war service. Provision was made by subsequent legislation to enable the tribunals to hear appeals by certain members whose applications for a service pension had been refused on the grounds that they were not suffering from pulmonary tuberculosis or were permanently unemployable.

Summary of war pensions

The following tables provide a summary of war pensions (excluding miscellaneous war pensions) for the 1914-18 War, the 1939-45 War, the Korea and Malaya operations, the Far East Strategic Reserve, and the Special Overseas Service. Statistics relating to miscellaneous war pensions are shown on page 1074.

WAR PENSIONS: SUMMARY, AUSTRALIA, 1964-65

	1914-18 War	1939-45 War	Korea and Malaya operations	Far East Strategic Reserve	Special Overseas Service (a)	Total
New claims granted . . . No.	1,631	25,068	858	208	9	27,774
Restorations . . . No.	154	640	9	..	..	803
Claims rejected(b) . . . No.	1,481	5,525	231	49	..	7,286
Pensions cancelled (gross) No.	465	25,312	148	7	..	25,932
Deaths of pensioners . . . No.	5,522	4,781	35	1	..	10,339
Number of pensions in force at 30 June 1965 .	107,364	541,474	9,700	850	17	659,405
Annual pension liability at 30 June 1965 . \$'000	47,730	92,015	1,031	76	3	140,854
Amount paid in pen- sions during the year 1964-65 . . . \$'000	n.a.	n.a.	n.a.	n.a.	n.a.	153,483

WAR PENSIONS: SUMMARY, AUSTRALIA, 1960-61 TO 1964-65

	1960-61	1961-62	1962-63	1963-64	1964-65
New claims granted No.	30,275	34,337	36,118	32,235	27,774
Restorations No.	1,334	1,300	1,035	992	803
<i>Total additions</i>	<i>31,609</i>	<i>35,637</i>	<i>37,153</i>	<i>33,227</i>	<i>28,577</i>
Pensions cancelled (gross) No.	16,677	18,816	28,020	25,275	25,932
Deaths of pensioners No.	8,057	7,950	8,867	9,440	10,339
<i>Total reductions</i>	<i>24,734</i>	<i>26,766</i>	<i>36,887</i>	<i>34,715</i>	<i>36,271</i>

(a) See page 1068—Repatriation (Special Overseas Services) Act 1962-1964.

(b) Number of ex-servicemen who had their claims for all their disabilities rejected.

Classes of war pensions

The following tables provide an analysis of the total number of new claims granted, pensions in force and members on special rates for 1964-65.

WAR PENSIONS: NEW CLAIMS GRANTED, AUSTRALIA, 1964-65

Class	1914-18 War	1939-45 War	Korea and Malaya operations	Far East Strategic Reserve	Special Overseas Service	Total
Ex-servicemen	711	7,236	165	56	2	8,170
Wives of ex-servicemen	870	6,255	174	44	2	7,345
Children	41	11,165	516	108	5	11,835
Other dependants	9	412	3	..	..	424
Total	1,631	25,068	858	208	9	27,774

WAR PENSIONS IN FORCE: AUSTRALIA, 30 JUNE 1965

Class	1914-18 War	1939-45 War	Korea and Malaya operations	Far East Strategic Reserve	Special Overseas Service	Total
Ex-servicemen	41,820	178,463	2,687	275	3	223,248
Wives	40,339	151,872	2,057	186	2	194,456
Children	675	178,720	4,613	349	6	184,363
War widows	23,675	18,439	94	10	2	42,220
Children of deceased ex-servicemen	113	6,405	129	26	3	6,676
Orphans	15	173	4	..	..	192
Parents	489	7,019	113	3	1	7,625
Brothers and sisters	42	99	3	..	..	144
Others	196	284	..	1	..	481
Total	107,364	541,474	9,700	850	17	659,405

WAR PENSIONS: MEMBERS ON SPECIAL RATES OR EQUIVALENT, AUSTRALIA
30 JUNE 1965

Class	1914-18 War	1939-45 War	Korea and Malaya operations	Far East Strategic Reserve	Special Overseas Service	Total
Totally and permanently incapacitated ex-servicemen	11,845	10,215	42	..	..	22,102
Blinded ex-servicemen	199	238	2	..	..	439
Tuberculous ex-servicemen	357	232	6	..	..	595
Tuberculous ex-servicemen (intermediate rate)	79	221	3	..	..	303
Temporarily totally incapacitated ex-servicemen	272	1,548	23	2	..	1,845
Ex-servicemen suffering other disabilities	43	48	2	..	..	93
Total	12,795	12,502	78	2	..	25,377

Number of war pensions and annual liability, States, etc., 30 June 1965

The following table shows the number of pensions in force and annual liability for each war, field of operations or service at 30 June 1965 according to place of payment. (The amount paid is shown on page 1073).

**WAR PENSIONS: NUMBER OF PENSIONS AND ANNUAL LIABILITY
STATES, ETC., 30 JUNE 1965**

Place of payment	Number of war pensions in force at 30 June 1965				Annual pension liability (\$'000)
	Incapacitated ex-servicemen	Dependants of incapacitated ex-servicemen	Dependants of deceased ex-servicemen	Total	
1914-18 WAR					
New South Wales(a)	13,415	13,099	8,294	34,808	15,845
Victoria	13,657	13,208	8,128	34,993	15,806
Queensland	5,614	5,396	2,481	13,491	6,405
South Australia(b)	3,322	3,442	1,919	8,683	3,698
Western Australia	3,255	3,581	1,636	8,472	2,987
Tasmania	1,750	1,663	1,013	4,426	2,174
Abroad	807	964	720	2,491	815
Total	41,820	41,353	24,191	107,364	47,730

1939-45 WAR

New South Wales(a)	62,633	110,009	11,789	184,431	32,236
Victoria	48,761	92,214	8,349	149,324	24,728
Queensland	26,370	51,755	4,775	82,900	15,309
South Australia(b)	17,580	33,744	3,082	54,406	8,396
Western Australia	15,751	28,123	2,602	46,476	7,369
Tasmania	6,781	14,551	947	22,279	3,598
Abroad	587	768	303	1,658	379
Total	178,463	331,164	31,847	541,474	92,015

KOREA AND MALAYA OPERATIONS

New South Wales(a)	1,031	2,473	141	3,645	381
Victoria	619	1,446	61	2,126	219
Queensland	481	1,263	74	1,818	207
South Australia(b)	194	509	15	718	77
Western Australia	222	619	21	862	85
Tasmania	94	284	8	386	39
Abroad	46	79	20	145	22
Total	2,687	6,673	340	9,700	1,031

FAR EAST STRATEGIC RESERVE

New South Wales(a)	116	245	24	385	32
Victoria	47	68	5	120	12
Queensland	76	154	7	237	22
South Australia(b)	8	16	..	24	1
Western Australia	25	43	3	71	7
Tasmania	2	8	..	10	1
Abroad	1	2	..	3	1
Total	275	536	39	850	76

(a) Includes Australian Capital Territory.

(b) Includes Northern Territory.

WAR PENSIONS: NUMBER OF PENSIONS AND ANNUAL LIABILITY
STATES, ETC., 30 JUNE 1965—continued

Place of payment	Number of war pensions in force at 30 June 1965				Annual pension liability (\$'000)
	Incapacitated ex-servicemen	Dependants of incapacitated ex-servicemen	Dependants of deceased ex-servicemen	Total	
SPECIAL OVERSEAS SERVICE					
New South Wales(a)	..	5	1	6	1
Victoria	..	..	1	1	..
Queensland	2	3	..	5	..
South Australia(b)	1	..	..	1	..
Western Australia	..	..	4	4	1
Tasmania	..	..	..	..	..
Abroad	..	..	..	..	..
Total	3	8	6	17	3

TOTAL					
New South Wales(a)	77,195	125,831	20,249	223,275	48,495
Victoria	63,084	106,936	16,544	186,564	40,765
Queensland	32,543	58,571	7,337	98,451	21,944
South Australia(b)	21,105	37,711	5,016	63,832	12,173
Western Australia	19,253	32,366	4,266	55,885	10,448
Tasmania	8,627	16,506	1,968	27,101	5,813
Abroad	1,441	1,813	1,043	4,297	1,216
Grand total	223,248	379,734	56,423	659,405	140,854

(a) Includes Australian Capital Territory.

(b) Includes Northern Territory.

Summary of war pensions

The following table shows, for each war, field of operations or service and in total, the number of pensions granted, claims rejected, pensions in force, and the annual liability for pensions in each of the years ended 30 June 1961 to 1965.

WAR PENSIONS: SUMMARY, AUSTRALIA, 1960-61 TO 1964-65

Year	Pensions granted	Claims rejected (a)	Number of war pensions in force at 30 June				Annual pension liability at 30 June (\$'000)
			Incapacitated ex-servicemen	Dependants of incapacitated ex-servicemen	Dependants of deceased ex-servicemen	Total	

1914-18 WAR

1960-61	2,094	2,085	50,338	48,205	22,743	121,286	46,035
1961-62	2,422	1,872	48,670	46,772	23,144	118,586	47,781
1962-63	2,394	1,854	46,606	45,212	23,566	115,384	47,410
1963-64	2,080	1,678	44,401	43,521	23,846	111,768	47,145
1964-65	1,631	1,481	41,820	41,353	24,191	107,364	47,730

1939-45 WAR

1960-61	27,202	14,718	159,727	346,391	27,205	533,323	70,294
1961-62	30,794	7,030	165,101	350,297	28,506	543,904	77,107
1962-63	32,496	6,125	170,594	345,914	29,723	546,231	81,092
1963-64	29,119	6,113	175,301	341,272	30,803	547,376	85,336
1964-65	25,068	5,525	178,463	331,164	31,847	541,474	92,015

(a) The number of claimants who had the claims for all their disabilities rejected.

WAR PENSIONS: SUMMARY, AUSTRALIA, 1960-61 TO 1964-65—continued

Year	Pensions granted	Claims rejected (a)	Number of war pensions in force at 30 June				Annual pension liability at 30 June (\$'000)
			Incapacitated ex-servicemen	Dependents of incapacitated ex-servicemen	Dependents of deceased ex-servicemen	Total	
KOREA AND MALAYA OPERATIONS							
1960-61 . .	913	848	2,043	4,247	261	6,551	703
1961-62 . .	969	383	2,208	4,919	285	7,412	797
1962-63 . .	1,035	342	2,412	5,618	290	8,320	876
1963-64 . .	862	271	2,554	6,175	322	9,051	945
1964-65 . .	858	231	2,687	6,673	340	9,700	1,031
FAR EAST STRATEGIC RESERVE							
1960-61 . .	66	118	53	62	15	130	15
1961-62 . .	152	70	104	146	26	276	32
1962-63 . .	193	48	166	264	36	466	48
1963-64 . .	196	58	223	396	39	658	62
1964-65 . .	208	49	275	536	39	850	76
SPECIAL OVERSEAS SERVICE(b)							
1963-64 . .	8	..	1	5	2	8	1
1964-65 . .	9	..	3	8	6	17	3
TOTAL							
1960-61 . .	30,275	17,769	212,161	398,905	50,224	661,290	117,047
1961-62 . .	34,337	9,355	216,083	402,134	51,961	670,178	125,718
1962-63 . .	36,118	8,369	219,778	397,008	53,615	670,401	129,427
1963-64 . .	32,235	8,120	222,480	391,369	55,012	668,861	133,489
1964-65 . .	27,774	7,286	223,248	379,734	56,423	659,405	140,854

(a) The number of claimants who had the claims for all their disabilities rejected. (b) Not applicable prior to 1963-64.

The following table shows, for the years 1960-61 to 1964-65, the amounts paid in pensions and the places where they were paid.

WAR PENSIONS: AMOUNT PAID(a), STATES, ETC., 1960-61 TO 1964-65 (\$'000)

Place of payment	1960-61 (b)	1961-62	1962-63	1963-64 (b)	1964-65
New South Wales(c) . . .	44,279	46,091	48,106	53,108	52,809
Victoria . . .	39,794	40,281	41,815	45,526	45,064
Queensland . . .	18,879	19,300	20,750	23,040	23,295
South Australia(d) . . .	12,166	12,016	12,349	13,500	13,209
Western Australia . . .	10,099	10,162	10,509	11,547	11,430
Tasmania . . .	5,501	5,351	5,663	6,152	6,210
Abroad . . .	1,523	1,605	1,539	1,656	1,466
Total . . .	132,241	134,805	140,731	154,530	153,483

(a) Includes domestic allowances paid to widows. (b) Includes five twelve-weekly payments. (c) Includes Australian Capital Territory. (d) Includes Northern Territory.

Miscellaneous war pensions

The Commission is also responsible for the payment of pensions and allowances to beneficiaries under the *Seamen's War Pensions and Allowances Act* 1940-1965, the *Interim Forces Benefits Act* 1947-1964, the *Native Members of the Forces Benefits Act* 1957-65, and Cabinet decisions granting eligibility to persons who were attached to the armed forces during war time.

The following table shows the number of pensions under the various Acts, and the annual liability at 30 June 1965, and the table thereafter shows the amounts paid during the years 1960-61 to 1964-65 and the place of payment.

MISCELLANEOUS WAR PENSIONS: NUMBER OF PENSIONS AND ANNUAL LIABILITY, AUSTRALIA, 30 JUNE 1965

Class	Number of pensions in force at 30 June 1965				Annual pension liability (\$'000)
	Members	Dependants of members	Dependants of deceased members	Total	
Act of grace	128	154	53	335	97
Seamen's war pension	71	106	64	241	58
New Guinea civilians	1	..	88	89	55
Interim forces	11	26	..	37	2
Native members of the forces	84	226	20	330	33
Total	295	512	225	1,032	245

**MISCELLANEOUS WAR PENSIONS: AMOUNT PAID, STATES, ETC.
1960-61 TO 1964-65
(\$'000)**

Place of payment	1960-61 (a)	1961-62	1962-63	1963-64 (a)	1964-65
New South Wales(b)	140	137	144	150	156
Victoria	67	66	67	71	70
Queensland	47	46	38	45	42
South Australia(c)	31	32	32	35	30
Western Australia	19	16	17	17	17
Tasmania	5	4	5	5	4
Abroad	4	2	3	..	1
Total	314	303	305	323	321

(a) Includes five twelve-weekly payments.

(b) Includes Australian Capital Territory.

(c) Includes Northern Territory.

Service pensions

The *Repatriation Act* 1920-1965 provides for a service pension to be paid, subject to a means test of income and property, to the following persons.

Ex-servicemen who served in a theatre of war and have attained the age of sixty years or are permanently unemployable;

Ex-servicemen who suffer from pulmonary tuberculosis, irrespective of the area of their service; and

Ex-servicewomen who suffer from tuberculosis, or who served in a theatre of war, or served abroad or embarked for service abroad and have attained the age of fifty-five years, or are permanently unemployable.

Rates of pension

The maximum rate of service pension is the same as that paid to an age or invalid pensioner by the Department of Social Services. A single or married ex-serviceman receives a pension of \$12.00 a week. If, however, an ex-serviceman's wife is receiving a Social Service pension, a tuberculosis allowance or a service pension as a member of the forces, the rate is \$11.00 a week. The service pension of an ex-serviceman is increased by \$1.50 a week for each eligible child other than the first.

The maximum weekly rates payable to a service pensioner's wife and eligible children are: wife, \$6.00; first child, \$1.50; other children up to three in number, 25c each. *Eligible child* means a child of a service pensioner, under the age of sixteen years, or a child over that age who

is wholly or substantially dependent on the pensioner and is undergoing full-time education, in which case pension may continue until the child's twenty-first birthday.

Supplementary assistance of \$2.00 a week is paid in addition to service pension to an ex-serviceman who is paying rent, or for lodging, or board and lodging, and whose *means as assessed* do not exceed \$2.00 a week or \$4.00 a week if he is married. (The allowance is reduced if the *means as assessed* exceed these amounts.)

A service pensioner who is unmarried, widowed, divorced, or married but separated, and who has care and control of one or more children, qualifies for a guardian's allowance of \$4.00 a week.

The means test sets limits to the amount of income or property which a pensioner may have for the purpose of service pension. The amount of service pension payable depends upon the claimant's *means as assessed*, which consist of his annual rate of income plus a property component equal to 8c a fortnight for each complete unit of \$20 of net value of property above \$400. For married couples, except where they are separated or in other special circumstances, the income and property of each for purposes of applying the means test is taken to be half the total income and property of both, even if only one is a pensioner or claimant. A person's *means as assessed* may consist entirely of income, entirely of property, or of both income and property components. If a single person's *means as assessed* do not exceed \$7 a week, he receives the maximum rate of pension. If his *means as assessed* exceed \$7 a week, the rate payable is the maximum rate less the amount by which *means as assessed* exceed \$7 a week. If his *means as assessed* are \$19 a week or more, no service pension is payable.

Income means earnings and other forms of income derived from any source, with certain exceptions, of which the principal are: certain income derived from property, gifts or allowances from children, parents, brothers or sisters, benefits from friendly societies, child endowment, Commonwealth health benefits. The value of board and lodgings received by a pensioner, either free or in return for services, is normally assessed as income at \$1.25 a week. Property includes all real and personal property, such as houses, land, money in hand, in a bank or on loan, shares, investments or legacies, vehicles used for business purposes, and livestock. Property does not include an applicant's permanent home, furniture or personal effects, the surrender value of life insurance policies (up to \$1,500), the value of any reversionary interest, the capital value of any life interest, annuity or contingent interest, or vehicles maintained only for personal use.

Eligibility for service pensions was extended on 1 November 1941 to veterans of the South African War 1899-1902 and in 1943 to members of the Forces of the 1939-45 War. Members of the Forces who served in Korea and those who served in Malaya prior to the commencement of the *Repatriation (Far East Strategic Reserve) Act* 1956-1964 are also eligible.

An ex-serviceman or ex-servicewoman in receipt of a service pension is entitled, with certain exceptions, to free medical benefits for disabilities not caused by war. These benefits include general practitioner service, specialist service where necessary, full pharmaceutical benefits, surgical aids and appliances (including spectacles), dental treatment, and treatment in Repatriation General Hospitals.

Operations, 1964-65

The following tables give a summary of service pensions.

SERVICE PENSIONS: SUMMARY, AUSTRALIA, 1964-65

	South African War	1914-18 War	1939-45 War	Korea- Malaya Opera- tions	Miscell- aneous (a)	Total
New claims granted. No.	13	3,504	4,606	14	72	8,209
Restorations . . . No.	..	532	503	..	..	1,035
Cancellations (gross) No.	7	2,354	2,528	29	15	4,933
Deaths No.	35	3,133	771	2	3	3,944
Pensions in force at 30 June 1965 . . . No.	354	45,495	19,023	52	254	65,178
Annual liability at 30 June 1965 . . \$'000	138	19,679	5,771	12	85	25,685
Amount paid in pensions during 1964-65 . . . \$'000	n.a.	n.a.	n.a.	n.a.	n.a.	25,508

(a) Includes native members of the forces and act of grace pensions.

SERVICE PENSIONS: SUMMARY, AUSTRALIA, 1960-61 TO 1964-65

		1960-61	1961-62	1962-63	1963-64	1964-65
New claims granted	No.	9,928	13,007	11,485	9,822	8,209
Restorations	No.	860	926	962	1,065	1,035
<i>Total additions</i>	No.	10,788	13,933	12,447	10,887	9,244
Cancellations (gross)	No.	3,838	3,925	4,595	4,675	4,933
Deaths	No.	2,455	2,736	3,274	3,572	3,944
<i>Total reductions</i>	No.	6,293	6,661	7,869	8,247	8,877

Classes of service pensions

The following tables provide analysis of the total number of new claims granted and pensions in force for 1964-65.

SERVICE PENSIONS: NEW CLAIMS GRANTED, AUSTRALIA, 1964-65

Class	South African War	1914-18 War	1939-45 War	Korea-Malaya operations	Miscellaneous	Total
Ex-servicemen	13	2,986	2,654	5	..	5,658
Wives of ex-servicemen	..	393	938	2	..	1,333
Children	..	125	1,014	7	..	1,146
Other	..	..	..	..	72	72
Total	13	3,504	4,606	14	72	8,209

SERVICE PENSIONS: NUMBER IN FORCE, STATES, 30 JUNE 1965

State	South African War	1914-18 War	1939-45 War	Korea-Malaya Operations	Miscellaneous	Total
New South Wales(a)	157	14,706	5,729	17	..	20,609
Victoria	62	11,961	3,983	5	3	16,014
Queensland	49	7,045	4,002	19	247	11,362
South Australia(b)	40	5,185	1,527	..	3	6,755
Western Australia	35	4,911	2,824	9	1	7,780
Tasmania	11	1,687	958	2	..	2,658
Australia	354	45,495	19,023	52	254	65,178

(a) Includes Australian Capital Territory.

(b) Includes Northern Territory.

Number, by class, of service pensions and amount paid

The following tables show the number of each class of service pension in force, the annual liability and the amounts paid for the years 1960-61 to 1964-65.

SERVICE PENSIONS: NUMBER OF EACH CLASS OF PENSION AND ANNUAL LIABILITY, AUSTRALIA, 1960-61 TO 1964-65

Number of service pensions at 30 June payable to—								
Year	Aged ex-servicemen	Ex-servicemen who are—		Dependants(a) of ex-servicemen where the ex-serviceman is—		Miscellaneous (b)	Total	Annual pension liability at 30 June (\$'000)
		Permanently unemployable	Suffering from pulmonary tuberculosis	Permanently unemployable	Suffering from pulmonary tuberculosis			
1960-61	22,125	12,645	1,273	12,520	1,739	..	50,302	16,688
1961-62	27,479	13,603	1,246	13,597	1,663	..	57,588	20,860
1962-63	30,818	14,278	1,160	14,368	1,537	..	62,161	22,759
1963-64(b)	32,834	14,471	1,118	14,701	1,464	200	64,788	24,652
1964-65	33,938	14,222	1,076	14,336	1,352	254	65,178	25,685

(a) Includes dependants of deceased service pensioners. (b) Miscellaneous service pensions were not applicable prior to 1963-64.

SERVICE PENSIONS: AMOUNT PAID, STATES, ETC., 1960-61 TO 1964-65
(\$'000)

Place of payment	1960-61	1961-62	1962-63	1963-64	1964-65
New South Wales(a)	5,470	6,313	7,095	7,981	8,494
Victoria	3,461	4,244	4,949	5,654	5,974
Queensland	2,426	3,250	3,362 (c)	3,823	4,048
South Australia(b)	1,525	2,193	2,487	2,689	2,766
Western Australia	2,102	2,687	2,927	3,177	3,320
Tasmania	581	736	837	874	904
Abroad	..	..	..	..	2
Australia	15,565	19,423	21,657	24,198	25,508

(a) Includes Australian Capital Territory. (b) Includes Northern Territory. (c) Excludes payment for 200 miscellaneous service pensions. This type of service pension was not payable prior to 1963-64.

Medical treatment for ex-servicemen and dependants of ex-servicemen

Medical treatment is provided for all disabilities which have been accepted as due to war service. In addition, and subject to certain conditions, treatment is provided for disabilities not due to war service for: ex-servicemen and ex-servicewomen receiving war pensions at or exceeding the maximum general (100 per cent) rate; ex-servicemen who have contracted pulmonary tuberculosis; nurses who served in the 1914-18 war; widows and certain dependants of ex-servicemen whose deaths have been accepted as due to war service and of deceased T.P.I. pensioners; and service pensioners, including service pensioners of the Boer War.

In-patient treatment for eligible patients is provided at the six Repatriation General Hospitals (one in each State) and eight auxiliary hospitals and sanatoriums as follows: *New South Wales*—Lady Davidson Hospital; *Victoria*—McLeod Hospital and Anzac Hostel; *Queensland*—Kenmore Hospital, Rosemount Hospital and Anzac Hostel; *South Australia*—Birallee Hospital; and *Western Australia*—The Edward Millen Hospital. The Anzac Hostels specialize in the care and treatment of long-term patients.

The total number of available beds for patients in open wards or parts of wards in all these institutions at 30 June 1965 was 4,378, and expenditure amounted to \$21,593,458. In addition, expenditure of \$24,950,910 was incurred on medical services outside these institutions.

Repatriation hospitals and institutions

Details of full-time staff in Repatriation General Hospitals and other Repatriation institutions are given in the following table.

**REPATRIATION HOSPITALS AND INSTITUTIONS: FULL-TIME STAFF
STATES, 30 JUNE 1965**

Type of institution	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
General hospitals—							
Medical staff	102	73	33	23	28	7	266
Nursing staff	790	505	258	196	191	51	1,991
Other staff	1,070	753	471	305	429	104	3,132
<i>Total, general hospitals</i> ..	<i>1,962</i>	<i>1,331</i>	<i>762</i>	<i>524</i>	<i>648</i>	<i>162</i>	<i>5,389</i>
Other in-patient institutions(a) .	217	111	175	37	34	..	574
Out-patient clinics(a)	164	73	22	34	22	..	315
Limb and appliance centres(a) .	67	69	30	20	13	11	210
Grand total	2,410	1,584	989	615	717	173	6,488

(a) Total staff.

The following table gives details of in-patients treated at Repatriation General Hospitals and other Repatriation institutions in each State. The figures shown refer to cases, e.g. a person who is admitted to hospital twice during a year is counted twice.

**REPATRIATION GENERAL HOSPITALS AND INSTITUTIONS: IN-PATIENTS
TREATED, STATES, 1964-65**

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.
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REPATRIATION GENERAL HOSPITALS

In-patients at beginning of year .	1,445	822	535	317	446	116	3,681
Admissions and re-admissions during year	19,099	10,273	8,721	4,677	5,939	1,569	50,278
<i>Total in-patients treated</i> ..	<i>20,544</i>	<i>11,095</i>	<i>9,256</i>	<i>4,994</i>	<i>6,385</i>	<i>1,685</i>	<i>53,959</i>
Discharges	18,103	9,480	8,365	4,328	5,596	1,491	47,363
Deaths	1,044	853	354	319	387	81	3,038
In-patients at end of year	1,397	762	537	347	402	113	3,558
Average daily number resident .	1,318	756	485	305	406	99	3,369

OTHER REPATRIATION INSTITUTIONS

In-patients at beginning of year .	221	88	136	35	28	..	508
Admissions and re-admissions during year	1,551	261	849	70	210	..	2,941
<i>Total in-patients treated</i> ..	<i>1,772</i>	<i>349</i>	<i>985</i>	<i>105</i>	<i>238</i>	<i>..</i>	<i>3,449</i>
Average daily number resident .	200	101	130	29	27	..	487

In addition to the Repatriation institutions, eligible patients may be treated in other country and metropolitan hospitals and nursing homes at Repatriation expense. During 1964-65, 14,368 Repatriation in-patients were accommodated and treated in hospitals and 420 in nursing homes.

Repatriation psychiatric patients requiring custodial care are, by agreement with the State Governments, accommodated at the expense of the Repatriation Department in separate wings of psychiatric hospitals administered by the State authorities. At 30 June 1965 there were 870 Repatriation patients in these hospitals.

Out-patient treatment is provided throughout the Commonwealth at Repatriation hospitals and clinics and through the Repatriation Local Medical Officer Scheme. During 1964-65, 555,771 out-patients were treated at Repatriation institutions and visits to or by local medical officers totalled 2,620,683.

General repatriation benefits and miscellaneous

Other Repatriation Department activities

The activities of the Department in respect of general benefits for the welfare of ex-servicemen and dependants concern mainly education and training of children under the Soldiers' Children Education Scheme (*see* pages 1080-1), medical benefits for widows and children of deceased ex-servicemen and for widowed mothers of deceased unmarried ex-servicemen, funeral expenses for certain classes of ex-servicemen and dependants, and allowances to certain classes of dependants.

These and new benefits designed for the re-establishment of servicemen and servicewomen after discharge were extended and made available by legislation passed in June 1940 to servicemen and servicewomen engaged in the 1939-45 War, and in November 1950 and May 1963 to those engaged in the Korea and Malaya operations and to those serving in such other areas as may be prescribed under the *Repatriation (Special Overseas Service) Act* 1962-65, respectively. The re-establishment benefits generally administered by the Repatriation Commission are: payment of re-employment allowance while awaiting employment; provision of tools of trade and equipment where they are necessary to employment; transportation expenses to meet the cost of fares and removal of household belongings where an ex-serviceman takes up training, employment, or a business, or settles on the land; supplements to wages of apprentices whose apprenticeships were interrupted by war service; re-establishment loans to enable ex-servicemen and widows to establish themselves in business, practices or occupations, including (until the Division of War Service Land Settlement began operations early in 1946) agricultural occupations; payment of re-establishment allowance during the early stages of establishment in business; gifts up to \$150 for furniture to ex-servicemen who are blind or totally and permanently incapacitated, also to widows with children under sixteen years of age; and free passages to Australia for wives, widows and children of ex-servicemen who married abroad (and passages outward from Australia in certain cases of ex-servicemen and dependants).

In 1949 the Department took over the functions of the Re-establishment Division of the former Department of Post-War Reconstruction and became responsible for the co-ordination of all matters relating to training under the Commonwealth Reconstruction Training Scheme. This scheme is now concluded, the prescribed time limits for eligibility having expired. Re-establishment of the more seriously disabled, where ordinary training is not sufficient, continues to be a function of the Department, and special means have to be found to overcome each problem.

Expenditure in 1964-65 on general repatriation benefits for all wars was \$3,474,000, comprising expenditure on business loans, \$2,000; Soldiers' Children Education Scheme, \$2,282,000; recreation transport allowance, \$590,000; and other benefits \$600,000. In addition, \$58,000 was expended by other Commonwealth authorities on Repatriation employment and vocational training.

Expenditure by the Repatriation Department, 1964-65

The net expenditure by the Department for the year ended 30 June 1965 was \$242,005,016 distributed as follows.

	\$'000
Pensions, allowances and other benefits	182,787
Medical treatment	46,544
Administration	9,631
Works, rent and maintenance	3,042
Total	242,005

Soldiers' Children Education Scheme

The Soldiers' Children Education Scheme was established in 1921 and operates with the assistance of voluntary Education Boards in each State. These Boards consist of representatives of government and non-government education authorities and of ex-service and other organizations which have a general interest in the welfare of the children of ex-servicemen. The objects of the scheme are to assist and encourage eligible children in acquiring a standard of education compatible with their aptitude and ability, and to prepare them to enter an agricultural, commercial, professional, or industrial calling of their own choice.

Eligible children. Eligible children are children of ex-servicemen whose deaths have been accepted as due to war service; or of ex-servicemen who died from causes not due to war service but who were receiving at the date of death a war pension at a special rate for blindness, total and permanent incapacity, pulmonary tuberculosis, or for amputation of two or more limbs; or of ex-servicemen who, as a result of war service, are blinded, totally and permanently incapacitated, or receiving the special rate pension for pulmonary tuberculosis and are likely to receive such pension for a period of at least three years.

General benefits. From the commencement of primary education up to twelve years, school requisites and fares are provided. An education allowance is also payable for a child from commencement of secondary education or from the age of twelve years, whichever is the earlier, while the child is undertaking primary or secondary education. Further assistance beyond, or parallel with, the later years of secondary education is provided where an approved beneficiary continues with a course of specialized education or training necessary for a career. Specialized education covers a wide range and may include: professional degree or diploma courses at universities and technical colleges; theological training; cadet and pupilage training, i.e. training combined with employment, such as nursing, pharmacy and journalism; industrial, including apprenticeship, training, and other courses of trade and business training approved by an Education Board; and agricultural training at an agricultural college. At this stage of training, in addition to the education allowance, fees are paid and text books, essential equipment and other minor benefits provided.

All education allowances are subject to an allowed income limit test; i.e. the amount of education allowance payable depends upon the amount of income a child receives over the allowed limit. The child's income for the purpose of determining the allowance payable means earnings from employment and other earnings from personal exertion and such portion of a scholarship, bursary or grant as the Education Board determines to be income. Income does not include war or service pensions paid for the child or any similar payment, income the child receives from private means, or income from casual employment during the entire period of a school or university vacation where the student is to continue as a full-time student under the scheme after the vacation. The parent's income does not affect the child's allowance. The scale of maximum allowances payable to eligible children at various stages of education is as follows.

SOLDIERS' CHILDREN EDUCATION SCHEME WEEKLY RATES OF ALLOWANCES, JANUARY 1966

Type of training	Living at home	Living away from home
At school—	\$	\$
Aged 12 and under 14 years . . .	1.90	6.32
Aged 14 and under 16 years . . .	2.88	6.32
Aged 16 and under 18 years . . .	6.32	9.78
Professional (university, etc.) . . .	10.00	15.25
Agricultural . . . . .	..	3.18
Industrial (apprenticeship, etc.) . . .	2.30	4.60

The following tables show the costs of education under the scheme for the year ended 30 June 1965 and the number of children in receipt of benefit at 30 June 1965.

SOLDIERS' CHILDREN EDUCATION SCHEME: EXPENDITURE, 1964-65
(\$'000)

	N.S.W. (a)	Vic.	Qld	S.A. (b)	W.A.	Tas.	Aust.
Cost of education of beneficiaries—							
Under 12 years of age	8	7	8	3	2	1	29
12 years of age and over	820	575	391	219	153	83	2,240
Total expenditure	828	581	398	222	154	84	(c) 2,269

(a) Includes Australian Capital Territory. (b) Includes Northern Territory. (c) Excludes overseas expenditure of \$12,000.

SOLDIERS' CHILDREN EDUCATION SCHEME: NUMBER RECEIVING BENEFITS(a)
AT 30 JUNE 1965

Type of training	N.S.W. (b)	Vic.	Qld	S.A. (c)	W.A.	Tas.	Abroad	Total
At school—								
Aged 12 and under 14 years	911	626	469	216	200	146	4	2,572
Aged 14 and under 16 years	1,116	762	562	291	235	184	8	3,158
Aged 16 and under 18 years	504	540	249	185	126	71	16	1,691
Total at school	2,531	1,928	1,280	692	561	401	28	7,421
Professional	355	292	187	150	67	22	13	1,086
Agricultural	13	13	6	3	4	..	1	40
Industrial	13	15	..	6	21	..	..	55
Grand total	2,912	2,248	1,473	851	653	423	42	8,602

(a) Refers only to children in receipt of an education allowance. (b) Includes Australian Capital Territory. (c) Includes Northern Territory.

Settlement of returned service personnel on the land

Reference to the settlement of returned service personnel on the land will be found in the chapter Land Tenure and Settlement.

The Services Canteens Trust Fund

The Services Canteens Trust Fund was established under the *Services Trust Funds Act 1947*. Its funds are derived from the assets and profits of wartime services canteens, mess and regimental funds of disbanded units, and several other sources.

The total amount transferred to the Fund to 31 December 1965 was \$11,053,986. The Act prescribed that, of this, \$5 million and such further amounts as the trustees of the Fund might from time to time decide, should be devoted to the provision of education facilities for the children of eligible ex-servicemen and ex-servicewomen, and that the balance of the Fund should be used to provide relief for ex-servicemen and ex-servicewomen and their dependants in necessitous circumstances.

The Fund is administered by eleven honorary trustees appointed by the Governor-General. The trustees have power to determine the persons or groups of persons to benefit from the Fund and the extent of benefits to be granted within the provisions of the Act, and to appoint regional committees to assist with the administration. Members of regional committees are all persons who served in the 1939-45 War or are widows of men who served during the war. They serve in an honorary capacity.

Assistance from the Fund

Persons eligible for assistance from the Fund are those who, between 3 September 1939 and 30 June 1947, served in the Australian Naval, Military or Air Forces, including members of the canteens staff of any ship of the Royal Australian Navy, persons duly accredited to any part of the Defence Forces who served in an official capacity on full-time paid duty, and their dependants. The trustees have introduced schemes for providing welfare relief for ex-servicemen and ex-servicewomen who are eligible for benefits and for their dependants; benefits for children of eligible ex-servicemen and ex-servicewomen who are suffering from serious and incapacitating afflictions; and education benefits for the children of eligible ex-servicemen and ex-servicewomen. From its inauguration in 1947 the Fund is to be available for forty years for welfare relief and for thirty years for educational benefits.

Welfare relief. The trustees have prescribed a policy for welfare relief which makes assistance available only to those who are in genuine distress from which they cannot extricate themselves by their own efforts. To 31 December 1965, \$2,884,150 has been granted as welfare relief from the Fund, \$1,824,378 to ex-servicemen and their dependants, and \$1,059,772 to widows and orphans. The amount granted during 1965 was \$170,388. A total of 32,398 ex-servicemen and ex-servicewomen and 15,285 widows and orphans were granted welfare assistance from the Fund to 31 December 1965.

Assistance under Afflicted Children's Scheme. The Fund assists dependent children suffering from afflictions which permanently disable or seriously retard their progress or prevent the enjoyment of normal health and strength, and who face a prospect of dependence on others for all or part of their lives. The extent to which assistance will be granted in a particular case depends largely on the nature of the child's affliction, the facilities available, the family circumstances, and the funds that can be made available. Up to 31 December 1965, 2,538 afflicted children had been assisted under the Afflicted Children's Scheme, involving an expenditure of \$277,782. The amount granted during 1965 was \$13,480. The number of new children assisted in 1965 was 59.

Educational Assistance Scheme. Educational assistance is restricted to children who are fifteen years of age and over, thirteen years and over where there are exceptional circumstances, and twelve years in the case of orphans. The object is to assist eligible children to obtain the highest education within their capacity. Assistance is in the form of awards ranging from \$10 to \$400 a year depending on the nature of the course undertaken and the family circumstances. These awards are granted chiefly for children at secondary education level, but are also available for other types of education. They are designed to cover, or contribute towards, the cost of essential books, fees in cases where government school courses are not available, fares between the child's home and school, essential equipment and material, uniforms in certain cases, and maintenance for the child while at school. Higher training awards are provided for selected students for post-graduate study, in Australia or overseas, in the ancillary services to medicine, welfare and science, and also for selected craftsmen to gain experience in their trade overseas. One post-graduate scholarship is provided each year for study overseas, valued at \$2,000 per annum for up to three years.

The number of children assisted under the educational assistance scheme to 31 December 1965 was 47,099, and the expenditure on educational awards, post-graduate scholarships and higher training awards to 31 December 1965 was \$5,652,522. The number granted in 1965 was 7,031 at a value of \$603,634.

Total assistance. The total assistance granted under the three schemes during 1965 was \$787,502 and from the inception of the Fund to 31 December 1965 totalled \$8,814,454.

CHAPTER 29

THE TERRITORIES OF AUSTRALIA

The internal Territories of Australia are the Northern Territory and the Australian Capital Territory. External Territories under the control of Australia are: Norfolk Island; Papua (formerly British New Guinea); the Territory of New Guinea (under Trusteeship Agreement with the United Nations); Nauru (under Trusteeship Agreement with the United Nations); the Territory of Heard and McDonald Islands; the Australian Antarctic Territory; the Territory of Cocos (Keeling) Islands; and the Territory of Christmas Island. There is also the Territory of Ashmore and Cartier Islands, to which the laws, ordinances and regulations of the Northern Territory, of which it is deemed to form part, apply wherever applicable.

Information on all except Ashmore and Cartier Islands is contained in the following pages, and details of the acquisition of all the Territories will be found on pages 4, 5, 22, and 23 of Chapter 1. More detailed statistics and additional descriptive matter are to be found in the Annual Reports of the Administrations of the various Territories and in the *Northern Territory Statistical Summary* and the *Australian Capital Territory Statistical Summary* issued by this Bureau. Statistics for the Northern Territory and the Australian Capital Territory are also included in chapters dealing with particular subjects.

THE NORTHERN TERRITORY

General description

Area

Upon the extension of New South Wales westward to the 129th east meridian in 1825, the Northern Territory was incorporated in that colony, but in 1863 it was annexed by Royal Letters Patent to the province of South Australia. With the adjacent islands, it was transferred to the Commonwealth on 1 January 1911. The total area is 520,280 square miles.

Legislation and administration

On 1 January 1911 the Territory was transferred from South Australia to the Commonwealth. The terms were outlined in Year Book No. 15, page 940. For particulars of the administration up to the *Northern Territory (Administration) Act 1931*, by which it was, for the second time, placed in the hands of an Administrator, see Year Book No. 38 and earlier issues.

The *Northern Territory (Administration) Act 1910-1965* provides for the constitution of a Legislative Council consisting of six official members, three nominated non-official members and eight elected members. A president is elected from among the non-official and elected members. The Council makes ordinances for the Territory, which must be submitted to the Administrator. The Administrator is obliged to reserve Ordinances relating to certain matters, including Crown lands and Aboriginal employment, for the Governor-General's pleasure, but in other cases has a discretionary power either to assent, withhold assent or to return the Ordinance to the Legislative Council with recommended amendments. The Governor-General also has a power in respect of a reserved ordinance to recommend to the Administrator any amendments to the laws of the Territory he considers to be desirable arising out of his consideration of the Ordinance. Money votes may be proposed in the Council only on recommendation by message of the Administrator.

The Territory elects a member to the House of Representatives, who has the right to take part in debates, but may vote only on matters that relate solely to the Northern Territory.

Physiography

The Territory is within the torrid zone, with the exception of a strip about 180 miles wide which lies south of the Tropic of Capricorn.

The low flat coast-line seldom reaches a height of 100 feet. Sandy beaches and mud flats, thickly fringed with mangroves, prevail. Sandstone, marl and laterite form the occasional cliffy

headlands. The sea frontage of more than 1,000 miles is indented by bays and inlets and intersected by numerous rivers, many of which are navigable for considerable distances from their estuaries. The only practicable deep-water port, however, is Darwin.

Inland the country generally is destitute of conspicuous landmarks. From the coast there is a general rise southwards to the vicinity of the seventeenth or eighteenth parallel of south latitude, where the higher lands form the watershed between the rivers that flow northwards to the sea and those that form the scanty supply for the interior systems. Towards the centre of the continent the land over a wide area is of considerable elevation, and there are several mountain ranges, generally with an east and west trend.

Climate, fauna and flora

There are two main climatic divisions, the wet season, November to April, and the dry season, May to October, with uniform and regular changes of weather. Nearly the whole of the rainfall occurs in the summer months. Further particulars appear in Year Book No. 6, page 1116.

The ordinary types of native Australian fauna inhabit the Territory. As elsewhere on the continent, the higher *Theria* are rare, but marsupials, birds, crocodiles, fresh-water tortoises, snakes (mostly non-venomous), and frogs abound. There are many varieties of fresh-water fish and littoral *Mollusca*. Butterflies and beetles are strongly represented. The termite is a pest which is capable of serious damage to wooden buildings unless special preventive measures are taken. A species of the ant builds anthills which sometimes attain great dimensions. Mosquitoes and sandflies are very troublesome, particularly in the wet season. Some types of native fauna are protected. Buffalo formerly existed in large herds, but their number has been reduced by indiscriminate shooting. Buffalo shooting is, however, now controlled by Ordinance.

The vegetation is north Australian in type, but a number of the forms belong to the Malayan and Oceanic regions. In the coastal regions tropical vegetation grows luxuriantly to the water's edge. In the north cypress pine, bloodwood and paper-bark timbers are now cut and milled for local building purposes. Cypress pine is resistant to termites. On the wide expanses of plain country in the interior there is little vegetation, the principal orders represented being: *Euphorbiaceae*, *Compositae*, *Convolvulaceae*, *Rubiaceae*, *Goodeniaceae*, *Leguminosae*, *Utricaceae*.

Population

See also the chapters Population and Vital Statistics.

At the census of 30 June 1961 the population of the Territory, excluding full-blood Aborigines, was 16,206 males, 10,889 females, 27,095 persons. Corresponding figures at the census of 30 June 1954 were 10,288, 6,181 and 16,469 respectively. The European population of the Territory increased slowly from 670 at the census of 1881 to 3,767 in 1918. By 1921 it had decreased to 2,458, and in 1933 was still only 3,306. It had risen to 9,116 at the census of 1947, to 14,031 at the census of 1954 and to 23,599 at the census of 1961. At 30 June 1965 the population, excluding full-blood Aborigines, was 34,803.

For particulars relating to the Aboriginal population see the chapter Population. All Aborigines, by virtue of the *Nationality and Citizenship Act* 1948–1960, are British subjects and Australian citizens. Northern Territory Aborigines are equal at law with all other Northern Territory residents, although a few special privileges exclusive to Aborigines have been retained. The *Social Welfare Ordinance* 1964 which repealed the *Welfare Ordinance* 1953–1963 provides for assistance without control for any person who is socially or economically in need of assistance. Reserves for Aborigines comprise an area of 94,025 square miles.

Production

See also the chapters dealing with particular subjects.

Land tenure

Three-sevenths of the land in the Territory is reserved or unoccupied and unreserved, the remainder, apart from a very small proportion alienated, being held under various forms of lease or licence, which are described in Year Book No. 48, pages 111–12. The following changes should, however, be noted.

Leases to Mission Organizations are now granted under the *Special Purposes Leases Ordinance* 1953–1965 for fixed terms or in perpetuity.

Miscellaneous Leases are now granted in perpetuity for purposes such as a market garden, plantation, orchard, vineyard, poultry farm, piggery, or the like.

Darwin Town Area Leases are granted in perpetuity for business or residential purposes, or both, in the Darwin Town Area.

Chapter 4, Land Tenure and Settlement, of this issue contains statistical information concerning areas occupied under various forms of tenure.

Agriculture

Up to the present agriculture has made little progress in the Territory, although rice, peanuts, tobacco, grain sorghum, bananas, pineapples, citrus fruits, cashew nuts, mangoes, papaws, vegetables, fodder plants, and improved pastures can be grown in certain areas. At the present time commercial agricultural production is practically confined to vegetables and small-scale fruit production (mainly pineapple, citrus and bananas) for local consumption. A small industry is being developed in Townsville lucerne seed production and in the production of hay.

Information concerning scientific surveys (commenced in 1946) conducted by the Commonwealth Scientific and Industrial Research Organization to determine more accurately the potentialities of the Northern Territory and the resulting establishment of an agricultural research station at Katherine and experimental farms at Katherine and Berrimah (near Darwin) is given in Year Book No. 51, page 101, and in earlier issues. Information is given also on the establishment of rice research stations and investigational work carried out and on subsequent rice crop commercial scale operations. The appointment by the Minister for Territories in 1959 of an expert committee to carry out investigations relative to agricultural settlement in the Territory and subsequent developments are also referred to.

NORTHERN TERRITORY: AREA AND PRODUCTION OF CROPS 1960-61 TO 1964-65

Crop	1960-61	1961-62	1962-63	1963-64	1964-65
AREA(a) (acres)					
Fruit—Bananas . . .	42	37	35	43	28
Pineapples . . .	20	15	11	23	19
Other . . .	58	84	90	83	83
<i>Total, fruit</i> . . .	<i>120</i>	<i>136</i>	<i>136</i>	<i>149</i>	<i>130</i>
Peanuts . . .	335	307	(b)	(b)	(b)
Sorghum for grain . . .	95	(b)	(b)	527	1,269
Vegetables for human consumption	142	125	149	133	150
Other crops(c) . . .	919	1,115	1,465	1,680	2,687
<i>Grand total(a)</i> . . .	<i>1,611</i>	<i>1,683</i>	<i>1,750</i>	<i>2,489</i>	<i>4,236</i>
PRODUCTION					
Fruit—Bananas . . bushels	963	1,252	1,909	2,174	2,448
Pineapples . . . "	765	1,163	778	943	1,142
Peanuts . . . cwt.	1,215	1,343	(d)	(d)	(d)
Sorghum (grain) . . bushels	893	(d)	(d)	6,210	10,693

(a) Excludes rice; details are not available for publication. (b) Not available for publication, included in Other crops. (c) Principally fodder crops. (d) Not available for publication.

Pastoral industry

The pastoral possibilities of certain parts of the Territory were recognized at an early date, and both cattle and sheep raising have been attempted. For various reasons sheep-raising has not been very successful, but the cattle industry has progressed steadily and is continuing to expand, except in the Alice Springs District, which has experienced drought for eight years. There is substantial potential for further expansion in the higher rainfall area of the Territory through the introduction of improved pastures and the use of superphosphate. Cattle exported during 1964-65 numbered 85,130—38,588 to Queensland, 38,781 to South Australia and 7,761 to Western Australia. Other livestock exports included 1,035 horses. Imports of livestock were—bulls, 1,437; other cattle, 12,571; horses, 600; sheep, 4,449; pigs, 5; and poultry, 17,168.

NORTHERN TERRITORY: LIVESTOCK, JUNE 1961 TO 1965

30 June—	Horses	Cattle	Sheep	Pigs	Goats
1961 .	40,054	1,154,656	16,089	2,845	5,958
1962 .	40,809	1,063,528	10,388	2,762	4,949
1963 .	38,191	1,086,627	9,469	1,842	4,275
1964 .	38,391	1,105,161	10,023	1,806	4,727
1965 .	35,997	1,067,327	9,099	2,182	4,382

The numbers of hides and skins exported from the Territory during 1964-65 were as follows: sheep, 3,559; crocodile, 2,124; cattle, 35,902; and buffalo, 853.

Mining

During 1964 the value of output of the mining industry in the Territory, excluding uranium mining, was \$7,234,000.

The mining of copper ores and concentrates is the most important in terms of value of output, and accounts for more than half the Territory's total recorded production. Prior to 1956 gold minerals, first mined in 1869, accounted for most of the value of output, but from 1956 onwards gold production has remained relatively constant while copper production has increased considerably. The bulk of the copper and gold is won at Tennant Creek, where the government battery was re-opened in 1958 to encourage gold mining by smaller operators. The government also operates a battery at Mount Wells, about 100 miles south-east of Darwin, for the treatment of cassiterite (tin) and gold ores from that locality.

Plans are now being put into operation to work several large mineral deposits in the territory, bauxite at Gove, manganese on Groote Eylandt, iron at Frances Creek and Mount Bundy, and lead-zinc at McArthur River (*see also* the chapter Mineral Industry).

NORTHERN TERRITORY: MINING AND QUARRYING OPERATIONS, 1962 TO 1964

(Excluding uranium mining)

	1962	1963	1964
Number of mines and quarries	94	65	84
Average number of persons employed during whole year (including working proprietors)	424	457	585
Salaries and wages paid(a)(b) \$'000	1,520	1,590	2,138
Total fuel, materials, etc., used "	1,220	1,394	1,727
Value of additions and replacements to fixed assets(a) "	672	388	2,866
Value of output (at mine or quarry) "	5,364	6,480	7,234
Value of production(c) "	4,144	5,086	5,506

(a) Excludes mines employing less than four persons. (b) Excludes drawings by working proprietors; the amounts are net after deducting value of explosives sold to employees. (c) Value of output less cost of power, fuel and light and other materials and stores used; depreciation and maintenance costs have not been deducted.

Forestry

In August 1958 the Commonwealth Government approved a six-year programme of forestry improvement and development to preserve existing forest areas and increase possible timber resources. The programme is being carried out by the Forestry and Timber Bureau. Experimental work in reforestation is being carried out in small plantation areas. Cypress pine appears the most promising species for large-scale commercial plantings. Local production of log timber, mainly cypress pine, amounted to 1,425,757 super. feet in 1964-65, but this was insufficient to meet local requirements, and about 3,360,465 super. feet of timber was imported from the States and overseas.

Pearl fisheries

In 1884 mother-of-pearl shell was discovered in the harbour of Port Darwin. Since then the areas fished have extended to the various banks to seaward and coastwise along the Northern Territory coast.

NORTHERN TERRITORY: FISHING AND PEARLING(a), 1960-61 TO 1964-65

—	1960-61	1961-62	1962-63	1963-64	1964-65
General fisheries—					
Boats engaged . . . no.	27	33	30	30	28
Men employed . . . "	64	63	68	54	69
Landed weight of fish catch '000 lb.	396	226	306	249	290
Gross value of fish \$'000	80	46	38	44	55
Pearl-shell fisheries(b)—					
Boats engaged . . . no.	5	3	2	2	2
Men employed . . . "	39	37	22	23	22
Total take of pearl-shell '000 lb.	222	147	115	11	12
Gross value of pearl-shell \$'000	90	58	40	3	2

(a) Excludes operations of Japanese pearling fleet. (b) Season ended January.

Competition from plastic materials has reduced the price being paid for pearl-shell to a low level, and pearling has declined in recent years. The commercial production of cultured pearls has been commenced by a Territory enterprise and it is hoped that the new industry will succeed in replacing the old pearling industry.

Secondary industries

The secondary industries that have so far been established in the Territory have been largely the service industries normally associated with a developing area, for example home building, electrical repairs, printing, motor and marine engineering, plumbing, welding, joinery, sheet metal work, and blue metal crushing. Major industrial investments by private interests in recent years include two breweries and a factory for the manufacture of milk products, ice cream and aerated waters. A bitumen plant began operation early in 1966.

NORTHERN TERRITORY: FACTORIES, 1960-61 TO 1964-65

—	1960-61	1961-62	1962-63	1963-64	1964-65
	No.	No.	No.	No.	P No.
Factories(a)	122	130	141	139	174
Average number employed(b)—					
Males	826	788	878	978	1,098
Females	88	77	89	97	112
Persons employed	914	865	967	1,075	1,210
	\$'000	\$'000	\$'000	\$'000	\$'000
Salaries and wages paid(c)—					
Males	1,820	1,874	2,146	2,628	3,298
Females	128	120	130	142	185
Total salaries and wages paid	1,948	1,994	2,276	2,770	3,483
Value of power, fuel, light, etc.(d) used	502	558	560	735	864
Value of materials(e) used	2,290	2,416	2,876	3,204	4,550
" " production(f)	3,506	3,980	4,492	5,118	6,654
" " output(g)	6,298	6,954	7,928	9,057	12,068
" " land and buildings(h)	2,732	2,872	3,304	4,586	6,815
" " plant and machinery(h)	2,812	3,058	6,338	6,046	6,103

(a) Any factory, workshop or mill in which four or more persons are employed or power other than hand is used. (b) The aggregate of the average number of persons employed in each factory. Includes working proprietors. From 1962-63 figures represent average employment over the whole year; for earlier years figures are averages during period of operation. (c) Excludes drawings by working proprietors. (d) Includes water and lubricating oil. (e) Includes also containers, etc., tools replaced and repairs to plant. (f) Value added in process of manufacture (i.e. value of output less value of materials and fuel used). (g) Value of goods produced including amounts received for repair work and other work done. (h) Depreciated or book value at end of year, including estimated value of rented premises and machinery.

Trade, transport and communication

Trade

No record is kept of the trade between the States and the Territory. The following table shows the values of the principal commodities imported into and exported from the Northern Territory from or to overseas countries during the years 1960-61 to 1964-65.

**NORTHERN TERRITORY: PRINCIPAL OVERSEA
IMPORTS AND EXPORTS, 1960-61 TO 1964-65**
(\$'000)

Commodity	1960-61	1961-62	1962-63	1963-64	1964-65
IMPORTS					
Petroleum and shale spirit—					
Aviation spirit	308	431	184	232	143
Other (motor spirit)	259	437	279	389	339
Aviation turbine fuel	696	1,371	521	670	1,022
Other oil(a)	179	201	293	310	487
Rotary oil-boring machinery and parts . . . . .	..	49	338	5	..
Sulphur	105	89	159	141	71
Portland cement	110	122	157	174	322
Timber, undressed hardwood	139	120	97	151	214
Other articles	616	1,348	357	865	1,526
Total imports	2 412	4,168	2,385	2,937	4,124
EXPORTS(b)					
Meats . . . . .	..	..	7	1,546	2,323
Hides and skins, raw	40	262	153	237	123
Non-ferrous base metals . . . . .	..	..	172	..	9
Live animals	97	237	355	131	..
Copper ores and concentrates	280	347	242	78	805
Pearls	51	5	30	180	170
Other articles	402	372	130	302	379
Total exports	870	1,223	1,089	2,474	3,809

(a) Includes kerosene, gas oil, diesel oil, residual oil, etc.

(b) Includes domestic exports and re-exports

Shipping

Shipping services to Darwin are provided from the eastern States at intervals of about four weeks by ships of the Australian National Line and from Western Australia by about four ships a month of the Western Australian State Shipping Service. Oil tankers visit Darwin approximately fourteen times annually with supplies of aircraft fuel and other petroleum products. Other overseas vessels call at irregular intervals. During 1964-65 approximately 213,000 tons of merchandise were discharged at Darwin. A vessel operated from Brisbane serves settlements on the Gulf of Carpentaria, and some mission-owned boats carry cargo from Darwin to mission stations and government settlements along the coast.

Air services

At 30 June 1965 there were nine government aerodromes and 125 licensed aerodromes in the Territory. The overseas passenger services using the Darwin international airport are Air India; Qantas/B.O.A.C. (Sydney to London); B.O.A.C. (Sydney to Hong Kong); and K.L.M. (Sydney to Amsterdam). Qantas also conducts a freight service from Sydney to London. Regular inland services to Darwin, with, in some cases, intermediate stops at Territory centres, are operated by Trans-Australia Airlines and Ansett-A.N.A. (from Adelaide, Melbourne, Sydney and Brisbane).

and MacRobertson-Miller Airways Ltd. (from Perth and Derby). MacRobertson-Miller Airways Ltd. and Connellan Airways Ltd. operate a network of air services throughout the Territory, the latter company's base being at Alice Springs. The Royal Flying Doctor Service also operates aircraft, while charter services can be secured at Darwin and Alice Springs.

Railways

The Commonwealth Railways Commissioner operates the Central Australia Railway from Port Augusta in South Australia to Alice Springs over a distance of 822 miles, of which about 200 are in the Northern Territory. The line is standard gauge from Port Augusta to Maree, a distance of 217 miles, and 3 ft. 6 in. from Maree to Alice Springs. The Commissioner also operates the North Australia Railway between Darwin and Birdum on a 3 ft. 6 in. gauge over a distance of 317 miles. The two inland terminals, Alice Springs and Birdum, are about 630 miles apart and are connected by road transport along the Stuart Highway. Larrimah, on the highway and 6 miles north of Birdum, is the point of trans-shipment for passengers and goods and is, at present, the effective terminal. A road-rail freight service operates between Adelaide and Darwin via Alice Springs.

Roads

The Stuart Highway, 954 miles long, connects Alice Springs with Darwin and runs via Larrimah and Tennant Creek. The Barkly Highway, 403 miles long, connects Mount Isa (Queensland) with Tennant Creek and joins the Stuart Highway some 16 miles north of Tennant Creek. These highways are used for carrying various freights including cattle, particularly to and from the railheads at Alice Springs, Larrimah and Mount Isa. The routes are used also for overland tourists and travellers from the southern States to Darwin. With the further development of the pastoral and mining industries in the Territory, road trains are now being used on both highways for the export of cattle and ore. Both roads have good water bores and communications. There are now approximately 11,400 miles of roads in the Territory of which 1,474 miles are sealed.

Work on a programme for reconstruction of beef cattle roads, estimated to cost \$9,140,000 over a period of three to four years, commenced in 1961-62. Expenditure to 30 June 1965 was \$5,696,000. The transport of cattle by road is expected to increase the number, quality and value of cattle turned off.

Posts, telegraph, telephones and wireless

Postal communication is maintained by road, rail and air transport between Darwin and the capital cities of Australia. In addition, vessels belonging to the Western Australian State Shipping Service provide a regular service between Fremantle and Darwin. Inland, the northern part of the Territory receives its mail via Darwin or by means of the aerial services, and the southern districts are served via Adelaide.

The overland telegraph line, covering a length of 2,230 miles, runs from Adelaide to Darwin, and links Darwin in telegraphic communication with other parts of the world. Long-distance telephone communication is established between Darwin and the capital cities of Australia, and overseas telephone communication through Sydney or Perth is also available.

Regional national broadcasting stations are situated at Darwin, Alice Springs, Tennant Creek and Katherine, and there is a commercial station at Darwin. The majority of homesteads on pastoral leases are equipped with radio transceivers operated under licence from the Postmaster-General's Department. These stations are in daily communication with Flying Doctor bases situated at Alice Springs (Northern Territory), Wyndham (Western Australia), Broken Hill (New South Wales), and Cloncurry (Queensland), and are used for transmission of radio-telegrams and other communications.

Education

See also the chapter Education, Cultural Activities and Research.

European schools

Schools for European and part-European children in the Territory are conducted for the Commonwealth, on an agreed basis of reimbursement, by the South Australian Department of Education, which is represented in Darwin by an Assistant Supervisor of Education, Northern Territory Schools. At 30 June 1965 there were twenty-one government schools in the Territory, with 5,324 pupils, and four private schools, with 915 pupils, providing instruction according to the South Australian curriculum. There were also two subsidized schools on pastoral properties with a total enrolment of twenty-one. High schools have been established with classes to Leaving Certificate level at Alice Springs and Leaving Honours level at Darwin.

All children who live more than ten miles from an established school receive an allowance of up to \$320 (\$200 plus \$120 on a graduated scale according to family income) per annum plus fare concessions if they board away from home in order to attend school. Twelve Intermediate exhibitions or ten per cent of the number of candidates, whichever is the greater, are available annually, and carry benefits of \$10. There are also book allowances ranging from \$16 to \$20 per annum for secondary students. Approximately 350 children receive correspondence education under the South Australian Correspondence School system. The radio session 'School of the Air' supplements normal correspondence instruction for certain children in isolated areas.

Thirteen pre-school centres are in operation in the Territory, the staff of all except one being officers of the Northern Territory Administration. A number of scholarships are offered each year for Territory girls to qualify as pre-school teachers.

Special Aborigines' schools

The social, cultural and educational background of the Aborigines has made necessary the establishment of special schools for them. This is regarded as an interim measure only, and policy is that children are transferred into general community schools as they are judged capable of handling the curriculum. From the beginning of the 1956 school year control of these schools passed from the Commonwealth Office of Education to the Welfare Branch of the Administration. Nineteen schools have so far been established. A special syllabus and series of readers have been prepared for use in these schools. Free mid-day meals, milk, and school clothes are supplied to the pupils. In addition to the nineteen Administration schools, fifteen schools for Aboriginal children are conducted by missions with the aid of Government subsidies. Also, five schools aided by Government subsidies have been established on pastoral properties, and the establishment of others along similar lines is planned. Five pre-school centres are operated by the Administration for Aboriginal children, and four others are organized by the missions.

Theoretical training of apprentices

The recognition that technical school training is an extension of workshop training has led to the introduction of day-time classes which apprentices attend without loss of pay. Apprentices are directed by the Apprentices Board to undertake correspondence courses conducted by the Technical Correspondence School of the South Australian Education Department and the Sydney Technical College, these courses covering the work prescribed for the various trades in South Australia and New South Wales.

Aboriginal welfare

The Commonwealth and State Governments have adopted a common policy of assimilation which seeks that all persons of Aboriginal descent will choose to attain a similar manner and standard of living to that of other Australians and live as members of a single Australian community enjoying the same rights and privileges, accepting the same responsibilities and influenced by the same hopes and loyalties as other Australians. Since the commencement of the *Social Welfare Ordinance* 1964 in September 1964, Aborigines in the Northern Territory have been equal at law with all other residents, although some special benefits have been retained for them. An intensive welfare programme to prepare Aborigines for the demands of modern living is being carried out, and thirteen Government settlements and fourteen mission stations have been established, where Aborigines are encouraged to adopt a settled way of life, and health services, particularly child welfare services, education, housing, vocational training, and employment are provided. Aborigines are also encouraged to take part in the social activities of the community.

Finance

Details of receipts and expenditure of the Territory for the years 1960-61 to 1964-65 are shown in the table following. In this table the receipts and expenditure of the Northern Territory have been reclassified into a National Accounts form. The table covers transactions relating to the Northern Territory in the Commonwealth Consolidated Revenue Fund and the following trust funds: Northern Territory Government Settlements Canteens, Northern Territory Housing Commission, Northern Territory Housing Loans, and Northern Territory Transport. Details of the financial transactions of the Darwin City Council are also incorporated in the table. Revenue derived by the Commonwealth from income taxes, customs duties etc. levied in the Northern Territory and expenditure by the Commonwealth in the Northern Territory on such items as defence, civil aviation, railways etc., and payments to residents from the National Welfare Fund are not included.

NORTHERN TERRITORY: RECEIPTS AND EXPENDITURE
1960-61 TO 1964-65
(\$'000)

	1960-61	1961-62	1962-63	1963-64	1964-65
RECEIPTS					
Taxation—					
Stamp duties	42	50	76	42	42
Motor registration	142	150	162	188	214
Other	156	124	104	362	406
Interest, rent, etc.	520	664	590	694	752
Public enterprises income	190	162	114	452	396
Net sale of local and semi-governmental securities	-354	252	326	418	424
Other receipts—					
Net charge to Commonwealth budget	19,358	23,946	27,926	29,426	32,206
Other	104	-8	22	42	222
Total receipts	20,158	25,340	29,320	31,624	34,662
EXPENDITURE					
Net current expenditure on goods and services—					
Law, order and public safety	248	260	272	412	460
Education	706	854	920	1,052	1,320
Public health and welfare	4,502	4,630	5,300	5,994	6,986
Other	5,474	5,654	6,548	7,574	7,934
Capital expenditure on new assets and stocks—					
Roads	242	1,870	3,714	3,720	3,048
Housing	1,336	1,860	2,166	2,130	3,618
Other	7,042	9,392	9,632	9,680	10,262
Net purchase of existing assets	40	12	-48	-122	-118
Cash benefits	76	104	104	148	174
Subsidies	158	182	192	264	262
Interest paid	102	152	70	80	98
Net advances—					
Housing	186	264	350	546	198
Other	46	106	100	146	420
Total expenditure	20,158	25,340	29,320	31,624	34,662

THE AUSTRALIAN CAPITAL TERRITORY
General description

The Commonwealth Constitution provides that the Seat of Government of the Commonwealth shall be in the state of New South Wales but distant not less than 100 miles from Sydney. After a number of alternative sites were considered, an area of 911 square miles lying approximately 200 miles south-west of Sydney was transferred to the Commonwealth as from 1 January 1911. A further 28 square miles at Jervis Bay were transferred as from 4 September 1915 to serve as a port for the Territory.

The primary responsibility for administering the Australian Capital Territory lies with the Department of the Interior, whose functions include housing, education, police, and municipal services. Public health, justice and the provision of basic physical services, including water supply, sewerage and roads, are the responsibility of the Departments of Health, Attorney-General's and Works. The National Capital Development Commission has the overall responsibility for the planning and development of the Canberra city area.

The Australian Capital Territory Advisory Council was established in 1930. It has eight elected members and a representative from each of the Departments of Interior, Works, and Health and the National Capital Development Commission. The Council advises the Minister for the Interior on matters affecting the Australian Capital Territory. Ordinances are submitted in draft form to the Council for advice and comment before being implemented.

From 1911 until 1921 the population of the Australian Capital Territory remained almost static at about 2,000 persons. In 1922 it commenced to rise and by 1927 was nearing 6,000. The following year, with the transfer of departments from Melbourne, the population passed 8,000, and at the outbreak of the 1939-45 War had reached just under 13,000 persons. During the war growth was again slow, and at the Census of 30 June 1947 the population was 16,905 persons. In the post-war period the population increased more rapidly and at the Census of 30 June 1954 was 30,315 persons. With further transfers of departments from Melbourne it reached 58,828 persons (including 527 in Jervis Bay) at the Census of 30 June 1961. At 30 June 1965 the population was 88,571, made up of 85,779 in Canberra City and 2,792 in rural areas (including Jervis Bay). *See also* the chapters Population and Vital Statistics.

National Capital Development Commission

The *National Capital Development Commission Act 1957-1960* provides for a Commission to undertake and carry out the planning, development and construction of the City of Canberra as the National Capital of the Commonwealth. The year 1964-65 was the seventh year of the Commission's operations. Construction work was carried out by means of agency arrangements with the Department of Works and private consultants. Details of expenditure by the Commission in each year from 1959-60 to 1964-65 are included in the table on page 1096. Total expenditure in 1964-65 was \$30.9 million, comprising national works, \$1.8m; Commonwealth offices, \$6.8m; Territory works, \$14.2m; city works, \$1.9m; land developments, \$4.4m; other \$1.6m.

The following major works were completed during 1965 by the Commission and its agents: Oriental Studies Building, Australian National University; Canberra Theatre Centre; Anzac Park East Building; Gowrie Hostel; Campbell High School; Watson High School; Curtin South Primary School; Parliament House Extensions; Oakey Hill Reservoir; and Russell Buildings 6 and 7.

Works under construction at the beginning of 1966 included the following projects: National Library; Economics Building, Australian National University; Commonwealth Avenue Offices; Anzac Park West Building; Deakin High School; E.D.P. Building No. 2; A.C.T. Police Headquarters; Administration and Library Building, Canberra Technical College; Lyons Primary School; North Curtin Primary School; Hackett Infants School and South Curtin Infants School.

Works and services

Housing

In 1911 there were only 448 dwellings in the Australian Capital Territory, but by June 1965 the number had risen to almost 21,000. The following are the numbers recorded at successive censuses or surveys over the period: 1911, 448; 1921, 558; 1933, 2,098; 1947, 3,667; 1954, 7,444; 1961, 14,734; 1963, 16,547; 1965, 20,610. Figures for the last two years relate to occupied dwellings in Canberra only. Until the period following the 1939-45 War most houses and flats were built and rented by the Department of the Interior. More recently, particularly over the past four or five years, an increasing number of houses and flats have been built by private enterprise. Between 1961 and 1963 the proportion of privately owned homes and flats rose from 29 per cent to 38 per cent, and by 1965 it was 57 per cent. Public authorities will continue to provide the bulk of all rented accommodation in the foreseeable future. In June 1965, of the total of 20,610 occupied dwellings in Canberra, 8,866 were owned by the Commonwealth. To provide for additional home development three new suburbs have been opened in the Yarralumla Creek Valley, south-west of the former city area. In these suburbs, Hughes, Curtin and Lyons, 2,094 homes were occupied by the end of 1965. In all parts of Canberra 22,182 houses and 2,916 flats were completed during 1965.

Municipal services

Canberra has been developed as a garden city. More than three million trees and many acres of lawns have been planted since 1927. The development of new areas of parkland and the maintenance of existing tree and lawn areas is the responsibility of the Parks and Gardens Section of the Department of the Interior. Municipal services are also provided by the Department of the Interior.

At 30 June 1965, 19,781 consumers were connected to the city water supply, drawn through nine service reservoirs from two storages on the Cotter River with a total capacity of nearly 3,500 million gallons. A third storage dam site is currently being developed. In 1964-65 some 4,800 million gallons of water were consumed in Canberra and in addition the system supplied 373 million gallons to Queanbeyan in New South Wales. Treatment works at Weston Creek dispose of Canberra sewage. At 30 June 1965, 295 miles of sewers, 6½ miles of rising sewerage mains and 298 miles of storm water drains were laid.

Department of Works

Apart from the work it carries out for the National Capital Development Commission, the Department of Works acts as design and supervision agent for other Commonwealth departments and instrumentalities. Total expenditure during 1964-65 on all operations amounted to \$10.8 million (\$10.0 million in 1963-64), comprising: building works—housing, \$8,460; other building, \$6,671,154; engineering works, \$135,546; repairs and maintenance—building, \$1,747,736, engineering, \$2,032,820; purchase of plant, \$194,460. Major works completed during 1965 included: additions and alterations to the old block at Canberra Community Hospital; computer building and laboratories for the Commonwealth Scientific and Industrial Research Organization; Civic telephone exchange; and deep space tracking station, Tidbinbilla. Works under construction at the beginning of 1966 included: stages 1 and 2 of the new main hospital block and stage 2 of the nurses' home at the Canberra Community Hospital and a new barracks block at the Royal Military College, Duntroon.

Production

See also the chapters dealing with particular subjects.

Lands

Reference has been made in earlier issues of the Year Book to the general conditions of land tenure in the Territory and to the area of alienated and leased land, and the chapter Land Tenure and Settlement of this issue contains statistical information on the subject. (See also § 1. Canberra: Fifty Years of Development, page 123 of Year Book No. 49.)

Under the *Seat of Government (Administration) Act* 1910 Crown lands in the Territory may not be sold or disposed of for any estate in freehold except in pursuance of some contract entered into before the commencement of the Act. Leases of land in the city area are granted under the *City Area Leases Ordinance* 1936-1961, and leases of other lands under the *Leases Ordinance* 1918-1958. Land is also leased for various purposes in the city area under the *Church Lands Leases Ordinance* 1924-1932 and the *Leases (Special Purposes) Ordinance* 1925-1943, while one lease under the *Church of England Lands Ordinance* 1926 has been granted for church purposes. As considerable portions of the Territory lands are not immediately required in connection with the establishment of the city, large areas have been leased for agricultural or grazing purposes.

The Royal Australian Naval College is situated in the area of about 28 square miles at Jervis Bay acquired from New South Wales for possible use as a port in connection with the Territory. Some 5,000 acres of land in the area, mostly of little value agriculturally, are used for grazing purposes. The natural forest is being utilized for the production of hardwood building material, and the area treated is being reforested with softwoods on an experimental basis.

Forestry

Afforestation work has been undertaken, and plantations (mainly *Pinus radiata*) have been established at Uriarra, Mount Stromlo, Pierce's Creek, Green Hills, Kowen, and Tidbinbilla. Experimental plots have been established in the Brindabella mountains, and soil conservation areas at various locations throughout the Territory. The total area of softwood plantations at 30 June 1965 was 27,377 acres, of which 24,944 acres were *Pinus radiata*, the balance consisting of other softwood species, chiefly *Pinus ponderosa* and *Pinus nigra*, and 461 acres of experimental planting at Jervis Bay, mainly *Pinus radiata* and *Pinus elliottii*.

Forestry operations in the Territory were begun on Mount Stromlo in 1915. Plantings up to 1925 were chiefly decorative, but since then a much wider programme has been undertaken. Continued thinning operations have improved the forests so that they now yield a wide variety of products. Poles, saw logs and case timber are now cut in addition to substantial quantities of fencing material and pulp-wood. The yearly output of pines has increased from 2,500 cubic feet in 1930-31 to 1.3 million cubic feet, worth \$376,000 delivered to purchasing mills in Canberra.

In 1926 a comprehensive review was undertaken of the Territory's potential for forest development. The existing forest area has been placed under management, and a considerable amount of survey and assessment work has been completed, resulting in the extension of operations, including fire protection to 100,000 acres of hardwood forests in the Cotter catchment

area. Hardwood log production from Jervis Bay and Tidbinbilla forests during 1964-65 was 30,000 cubic feet, valued at approximately \$10,000 delivered at the purchaser's mill. Only small quantities remain unexploited.

Approximately eighty men are directly employed in the establishment and protection of the forests with some further twenty men employed on contract for the utilization of the forest. Up to 30 June 1965 a total of 18.4 million cubic feet of pine logs had been cut from the plantations. At present day values these logs would be \$5,414,000 delivered to the purchasing mills. A total of 141 million cubic feet of hardwood logs, valued at \$418,000 delivered, has been cut from the forests of Jervis Bay and the remainder of the Territory.

Agricultural, pastoral and secondary industries

During 1964-65 the production of the more important items of the agricultural and pastoral industry was: wheat 57,792 bushels; wool 2,475,000 lb.; whole milk 1,094,000 gallons; meat (carcass weight, fresh), 4,253 tons. The numbers of livestock depastured at 31 March 1965 were: horses 627; cattle 14,049; sheep 289,826.

As in the Northern Territory, the secondary industries established in the Australian Capital Territory are largely the service industries associated with the growth of the Territory.

AUSTRALIAN CAPITAL TERRITORY: FACTORIES, 1960-61 TO 1964-65

	1960-61	1961-62	1962-63	1963-64	1964-65 p
	Number	Number	Number	Number	Number
Factories(a)	123	140	164	170	187
Average number employed(b)—					
Males	1,759	1,838	2,052	2,236	2,637
Females	334	394	404	458	593
Persons employed	2,093	2,232	2,456	2,694	3,230
	\$'000	\$'000	\$'000	\$'000	\$'000
Salaries and wages paid(c)—					
Males	4,000	4,126	4,776	5,666	7,864
Females	460	502	598	608	849
Total salaries and wages paid	4,460	4,628	5,374	6,274	8,713
Value of power, fuel, etc.(d) used	250	274	326	502	644
" materials(e) used	4,882	5,374	6,922	8,428	11,500
" production(f)	7,100	7,536	8,368	11,096	14,317
" output(g)	12,232	13,184	15,616	20,026	26,462
" land and buildings(h)	4,130	5,670	4,556	11,668	21,596
" plant and machinery(h)	2,688	3,214	4,694	5,104	9,681

(a) Any factory, workshop or mill in which four or more persons are employed or power other than hand is used. (b) The aggregate of the average number of persons employed in each factory. Includes working proprietors. From 1962-63 figures represent average employment over the whole year; for earlier years figures are averages during period of operation. (c) Excludes drawings by working proprietors. (d) Includes water and lubricating oil. (e) Includes also containers, etc., tools replaced and repairs to plant. (f) Value added in process of manufacture (i.e. value of output less value of materials and fuel used). (g) Value of goods produced including amounts received for repair work and other work done. (h) Depreciated or book value at end of year including estimated value of rented premises and machinery.

Transport and communication

Canberra is connected with the railway system of New South Wales at Queanbeyan by a line 4½ miles long. This line was opened for goods traffic on 25 May 1914 and for passenger traffic on 15 October 1923. Direct or linking services operate between Canberra and Sydney and Canberra and Melbourne. Two airlines provide several services daily each way on the Sydney-Canberra-Melbourne route. Regular motor-coach services link Canberra with towns in New South Wales, Victoria and South Australia. There are three radio broadcasting stations in the Territory, 2CY and 2CN of the national broadcasting system and 2CA, a commercial station, and two television stations, ABC Channel 3 of the national broadcasting system and CTC Channel 7, a commercial station. The total length of roads in the Territory at 30 June 1965 was: bitumen and concrete, 415 miles; gravel, 185 miles; other formed roads, 90 miles; total, 690 miles.

Social

See also the chapter Education, Cultural Activities and Research.

Education

The *Education Ordinance 1937-1964* provides for the compulsory attendance at school of children between the ages of six and fifteen years. The Commonwealth Department of the Interior is primarily responsible for the education of children in the Australian Capital Territory. By agreement, however, the New South Wales Department of Education arranges the teaching programme in accordance with its own curriculum and provides the teaching staff. It is reimbursed for expenses incurred.

At 31 December 1965 there were seven public secondary schools in Canberra providing courses proceeding to the Higher School Certificate standard. A further secondary school commenced teaching classes at the beginning of 1966. Twenty schools provided courses for children in infants and primary classes, including one in the Jervis Bay area and three in rural districts. There were also a school for mentally handicapped children; a school for physically handicapped children, located at Canberra Community Hospital; a school for deaf children, located at the Ainslie Public School; a therapy clinic for children with speech defects; and a clinic for educational guidance. At the same date there were sixteen private schools in Canberra. Of these, St. Edmund's Christian Brothers' College, the Catholic Girls' High Schools at Braddon and at Griffith, the Daramalan College, the Canberra Grammar School (Boys), and the Canberra Church of England Girls' Grammar School provide courses leading to the Higher School Certificate. Twenty-nine pre-school centres, including two occasional care centres and a mobile unit which visits outlying areas, provide pre-school facilities for approximately 2,200 children between the ages of three and five years.

The Canberra Technical College, which follows generally the curriculum set by the New South Wales Department of Technical Education, provides trade, post-trade, certificate, and some hobby courses. Over eighty courses are given, covering instruction in seventeen of the Department of Technical Education's twenty-seven schools of study. Enrolments at the two Colleges at Reid and Kingston exceed 4,300. An area of about 250 acres has been set aside at Acton for the Australian National University. Provision has been made for the University to establish such research schools as may be thought desirable, including a School of Medical Research and Research Schools of Physical Sciences, Social Sciences and Pacific Studies. Provision for undergraduate studies and some post-graduate study is made by the School of General Studies.

Health

The Canberra Community Hospital serves the population of Canberra and surrounding districts. At 30 June 1964 it had 427 beds, an honorary medical staff of 78, seven salaried medical staff, and a nursing staff of 356. Extensions are being made to the hospital to enable it to cope better with the needs of Canberra's growing population. For further information *see* the chapter Public Health.

Justice

The Australian Capital Territory has a Supreme Court and a Court of Petty Sessions. There is an Australian Capital Territory Police Force, which at the end of 1965 numbered 167, including 4 policewomen. Of these, 97 were engaged on general duties, the traffic branch comprised 41, including the specialist water police and accident investigation squads, 26 were engaged in criminal investigation, 2 in caring for the Police Boys Club, and 1 in the Jervis Bay area.

Finance

In the table following the receipts and expenditure of the Australian Capital Territory have been classified in a National Accounts form. The table covers transactions relating to the Australian Capital Territory in the Commonwealth Consolidated Revenue Fund and the following trust funds: Australian Capital Territory Electricity Supply (to 1962-63), Australian Capital Territory Forestry, Australian Capital Territory Housing, and Australian Capital Territory Transport. In addition, details of the financial transactions of the following semi-governmental authorities are also covered: Australian Capital Territory Electricity Authority (from 1963-64), Commonwealth Brickworks and National Capital Development Commission. Revenue derived by the Commonwealth from income taxes, sales tax, etc. levied in the Australian Capital Territory and expenditure by the Commonwealth in the Australian Capital Territory on such items as defence, civil aviation, railways, etc., and payments to residents from the National Welfare Fund are not included.

AUSTRALIAN CAPITAL TERRITORY: RECEIPTS AND EXPENDITURE
1960-61 TO 1964-65
(\$'000)

	1960-61	1961-62	1962-63	1963-64	1964-65
RECEIPTS					
Taxation—					
Motor registration	322	370	408	474	540
Liquor tax	96	104	112	130	146
Other	176	218	238	294	436
Interest, rent, etc.	684	624	716	868	916
Public enterprises income	1,472	3,504	3,514	4,718	6,256
Net sale of semi-governmental securities	260	482	934	768	860
Other receipts—					
Net charge to Commonwealth budget	28,126	30,140	33,946	37,342	37,878
Other	54	140	—82	—660	84
Total receipts	31,190	35,582	39,786	43,934	47,116
EXPENDITURE					
Net current expenditure on goods and services—					
Law, order and public safety	178	190	366	422	524
Education	2,106	2,138	2,582	2,972	3,950
Public health and welfare	1,320	1,392	1,600	1,746	2,296
Other	2,708	3,934	3,366	4,566	5,802
Capital expenditure on new assets and stocks—					
Education	3,210	3,084	3,350	3,712	4,386
Cultural and recreational facilities	600	2,206	4,112	2,588	3,414
Public health and welfare	590	718	1,608	2,148	2,586
Water supply and sewerage	3,000	1,348	1,582	920	2,956
Roads and bridges	4,318	6,060	5,932	5,388	6,050
Power, fuel and light	1,282	964	1,084	1,256	1,658
Housing	7,276	6,956	7,484	6,602	7,822
Other	5,226	5,192	6,266	12,564	8,602
Net purchase of existing assets	—3,818	—5,744	—7,902	—11,714	—16,550
Cash benefits	34	30	32	38	50
Interest paid	82	162	140	212	276
Net advances for housing	3,078	6,952	8,184	10,514	13,294
Total expenditure	31,190	35,582	39,786	43,934	47,116

NORFOLK ISLAND

General description

Norfolk Island, discovered by Captain Cook in 1774, is situated in latitude 29° 3' 3" S., longitude 167° 57' 5" E. Its total area is approximately 14 square miles, the island being about 5 miles long and 3 miles wide. It is 1,035 miles from Sydney and 660 miles from Auckland. The length of the coast line is 20 miles, and its form that of an irregular ellipse. Except for a portion on the south side and the landing place at Cascade on the northern side almost inaccessible cliffs rise from the water's edge. The climate is equable, the temperature ranging between 47° and 82° F. with a mean of 68° F. The average annual rainfall is 56 inches.

After serving as a penal station from 1788 to 1813 and from 1826 to 1855 Norfolk Island in 1856 became the home of the remaining descendants of the *Bounty* mutineers. At the Census of 30 June 1961 the population was 844, consisting of 421 males and 423 females. Total population at 30 June 1965 was 980.

Administration

In 1856 the island was created a distinct and separate settlement under the jurisdiction of New South Wales. In 1896 it was made a dependency under the Governor of that Colony, and finally, by the passage of the *Norfolk Island Act* 1913, it was accepted by the Commonwealth Parliament as a territory of Australia. It is controlled by the Minister for Territories through an Administrator. The Norfolk Island Council is established pursuant to the *Norfolk Island Act* 1957-1963 and is constituted in accordance with the provisions of the *Norfolk Island Council Ordinance* 1960-1964. The Council may consider and tender advice to the Administrator on any matter affecting the peace, order and good government of Norfolk Island, and must be consulted on certain legislative and financial matters. The Council comprises the Administrator as *ex officio* chairman and voting member and eight members elected biennially.

Economic activity

The major economic activities of the island are primary production, the tourist trade and Government instrumentalities.

Primary industries. The soil on the island is particularly fertile, the climate equable and the rainfall fairly evenly distributed except for a pronounced dry period in November. This enables a wide range of temperate and semi-tropical products to be cultivated. However, the island's comparative isolation presents trading difficulties, and production of bean seed, formerly the major export, has declined rapidly since 1962-63.

Fish abound off the island. In the past a number of ventures have been formed to exploit this resource but they have been short-lived, mainly because of the lack of a sheltered harbour. A modern whaling station was started on the island in 1955, and production commenced during the second half of 1956. The quota of 150 humpback whales in 1956, 120 in 1957 and in 1958, 150 in 1959, and 170 in 1960 and in 1961, was caught and processed at the station. Owing to a marked scarcity of whales, however, only four were caught in 1962, and the station has been closed down.

An active forestry programme is being carried out to increase the resources of Norfolk Island pine and to introduce suitable types of eucalypts.

Tourists. The unique history and unusual beauty of the island have always attracted a number of tourists. Before the 1939-45 War the only means of transport to the island was by ship, but the building of the aerodrome in 1943 made the island far more accessible for tourists, and the number of tourists has increased steadily during recent years. There are at present three licensed residential hotels and five guest houses; additional accommodation is being planned.

Government instrumentalities. A large proportion of the population is employed by Commonwealth Government instrumentalities, namely: Department of Civil Aviation, Norfolk Island Administration, and Department of the Interior (Meteorological Branch). The bulk of the finance for the operation of these instrumentalities is supplied by the Commonwealth Government and this greatly increases the income of the island.

Trade, transport and communication

Imports to Norfolk Island since the 1939-45 War have risen from \$65,000 in 1945-46 to \$1,715,000 in 1964-65. In 1964-65 the major proportion (\$988,000 or 58 per cent) came from Australia, while New Zealand and Pacific Islands supplied \$89,000 or 5.2 per cent. Exports rose from \$18,500 in 1945-46 to \$420,000 in 1960-61, but had declined to \$253,000 by 1964-65, after whaling had ceased in 1962-63. Exports to Australia, the principal market, amounted to \$199,000 in 1964-65, while exports to New Zealand and to Pacific Islands amounted to \$51,000. No duties are chargeable on goods imported into Australia from Norfolk Island if the goods are the produce or manufacture of Norfolk Island, shipped direct to Australia, and not goods which if manufactured or produced in Australia would be subject to excise duty.

A shipping service to the island is maintained at approximately seven-week intervals from Sydney via Norfolk Island to the New Hebrides, Solomon Islands and other island groups and thence back to Sydney, while other vessels plying between Sydney and Noumea call at Norfolk Island about every three weeks. Shipping between the island and New Zealand is infrequent.

A twice-weekly passenger and air freight service between Sydney and Norfolk Island, maintained by Qantas Empire Airways Ltd., extends to New Zealand under charter to Air New Zealand Ltd.

There are approximately fifty miles of usable road on the island. As a substantial section of the population possesses private motor cars, and taxi-cab and bus services are available, transport is almost exclusively by motor vehicle.

Education

Education is free and compulsory up to the age of fifteen years. The school, which is conducted by the New South Wales Department of Education, conforms to the Australian standard of public education, ranging from kindergarten to the School Certificate examination. The teachers are provided by the New South Wales Education Department, but they are paid by the Norfolk Island Administration. The number of scholars enrolled at 30 June 1965 was 191.

Judiciary

The judicial system of Norfolk Island consists of a Supreme Court and a Court of Petty Sessions. The Supreme Court is the highest judicial authority in the Territory and is a superior court of record with original criminal and civil jurisdiction. The jurisdiction of this Court is exercised by one judge sitting in Court or, to the extent and in the cases provided by or under ordinance, sitting in Chambers. The jurisdiction of the Court of Petty Sessions is exercised by a Chief Magistrate or any three magistrates other than the Chief Magistrate.

Finance

The revenue of the Territory, together with an annual grant from the Commonwealth Government for administrative expenses, is paid to the credit of the Norfolk Island Trust Fund, and advances for administrative and developmental expenses are drawn from the account. The principal items of revenue and expenditure for the five years 1960-61 to 1964-65 were as follows.

NORFOLK ISLAND: REVENUE AND EXPENDITURE, 1960-61 TO 1964-65
(\$'000)

	1960-61	1961-62	1962-63	1963-64	1964-65
REVENUE					
Commonwealth subsidy	64	64	64	67	67
Customs duties	29	31	36	45	55
Sale of liquor	19	22	26	30	34
Post office	88	77	48	55	55
All other	17	24	23	33	33
Total revenue	218	217	197	232	245
EXPENDITURE					
Administrative	39	43	42	46	55
Miscellaneous services	21	24	28	20	21
Social expenditure	33	44	44	50	68
Repairs and maintenance	17	18	16	17	20
Capital works and services	14	42	46	48	55
Postal services	29	15	15	26	16
Other business undertakings	1	1	6	12	6
Total expenditure	154	186	199	219	241

PAPUA AND NEW GUINEA

The information under this heading is applicable to both the Territory of Papua and the Trust Territory of New Guinea. For details of the respective Territories *see* pages 1113 (Papua) and 1119 (New Guinea) and following pages.

Administration

The *Papua-New Guinea Provisional Administration Act 1945-1946*, which provided for the transfer back of control from the military authorities to civil authorities after the 1939-45 War, was repealed by the *Papua and New Guinea Act 1949*, which came into force on 1 July 1949.

The latter Act approved the placing of the Territory of New Guinea under the International Trusteeship system and provided for an Administrative Union of the Territory of Papua and the Territory of New Guinea with one Administrator, a Legislative Council and an Executive Council, one Supreme Court, and one Public Service.

For an outline of the development of the Legislative and Executive (later Administrator's) Councils between 1949 and 1963, see Year Book No. 51, page 117.

In May 1963 the Commonwealth Government passed an amendment to the Papua and New Guinea Act, making provision for a House of Assembly of 64 members to replace the Legislative Council. The House now consists of 10 official members appointed by the Governor-General on the advice of the Administrator, 44 members elected by the people of the Territory on a common roll in 44 open electorates, and 10 non-indigenous persons elected on a common roll in 10 special electorates comprising one or more open electorates. The first elections for the House of Assembly were held in February-March 1964, and the inaugural meeting of the new House convened on 8 June 1964.

The 1963 Act also increased the membership of the Administrator's Council from 7 to 11 seven of whom must be elected members of the House of Assembly.

Local government was introduced in 1949 by the Native Village Councils Ordinance which was replaced by the *Local Government Ordinance* 1963. The Administrator may establish by proclamation local government councils with authority in defined areas. Provision is also made for the establishment of multi-racial local councils.

Judiciary

The courts which exercise jurisdiction within the Territory are: the Supreme Court of the Territory of Papua and New Guinea, District Courts (Papua and New Guinea), Local Courts (Papua and New Guinea), and Warden's Courts.

The Supreme Court is the highest judicial authority in the Territory and has unlimited criminal and civil jurisdiction. District Courts have criminal jurisdiction over the less serious offences which are punishable on summary conviction, but have no jurisdiction to try treason crimes, misdemeanours and other indictable offences. They also exercise a limited civil jurisdiction. The Local Courts exercise a substantially similar jurisdiction but at a more subordinate level. They replace the former Courts for Native Matters (Papua) and Courts for Native Affairs (New Guinea) which used to deal only with disputes or offences involving indigenes. The Administrator has power to establish, in respect of each gold field or mineral field, warden's courts with jurisdiction over civil cases respecting mining or mining lands held under the *Mining Ordinance* 1937-1959 and offences against the mining laws of the Territory.

In addition, there is the Land Titles Commission set up under the *Land Titles Commission Ordinance* 1962-1965 to inquire into and determine rights in land, particularly native land. The Commission has the particular function under the *New Guinea Land Titles Restoration Ordinance* 1951-1965 to inquire into and determine claims to interest in land where the official records have been lost or destroyed as a result of the Japanese invasion of New Guinea. For the purposes of the latter Ordinance the jurisdiction of the Commission is exercised by the Chief Commissioner or a Commissioner appointed under the *Land Titles Commission Ordinance* who is a qualified legal practitioner.

Agriculture and animal industry

Soils

Although a large part of Papua and New Guinea is covered by skeletal soils unsuitable for agriculture, there are extensive areas in all districts where fertile soils occur suitable for growing a wide range of crops. Most of the agriculture of the Territory up to the present has been on soils on the coastal plains, which, apart from the swamp soils, consist mainly of alluvium and podsolized alluvium. So far these have been mostly under coconut plantations, although other crops such as rubber and cocoa have also been grown. The swamp soils, of which there are extensive areas in the delta plains and other parts of the Gulf of Papua and in smaller areas, are found intermittently around the coasts and along the lower reaches of the rivers, and are in general quite unsuited to any form of agricultural development.

Volcanic soils probably offer the greatest prospects for development. They are found mostly on the central plateau and southern foothills of the main island, but there are also areas in New Britain (particularly in the Gazelle and Willaumez Peninsulas), Bougainville and New Ireland, as well as in numbers of smaller islands. Other rich soils are the alluvials of the river valleys. The largest single area of this type is in the trough occupied by the Ramu and Markham Rivers.

Climate

The climate, particularly the rainfall, over so wide an area as Papua and New Guinea, with its numerous islands and varying elevations, naturally presents many variations. Generally speaking the climate is moist and tropical except at high altitudes. There are only small differences in both daily and seasonal extremes. The Territory has no winter and summer, and no great variation in day-length over the year. The two seasons which are experienced are generally described as the 'south-east' and the 'north-west', corresponding with the periods of the year when the south-east trade winds and the north-west monsoons direct the main Territory air-flow. The south-east season prevails approximately from May to October, the trade winds attaining maximum velocities during July and August. The north-west monsoon operates over a considerably shorter period, from the end of December to about March. During the periods between these seasons, November and early December and about March to April, there are two short spells of calm weather.

Rainfall varies considerably from an average annual rainfall of 245 inches at Gasmata in New Britain and 231 inches at Kikori in Papua to about 88 inches at Wewak in New Guinea and 40 inches at Port Moresby.

Although the Territory has no summer and winter it has a wide temperature range, due to differences in altitude, varying from an absolute highest temperature of about 100° F. along the coast to freezing point on its highest peak, Mt. Wilhelm (14,762 ft.).

Humidity in the Territory is very high throughout the year. Some coastal stations register an average relative humidity of more than 90 per cent. Humidities below 60 per cent are rare at coastal stations, average figures varying from 80 per cent at 9 a.m. to 65 per cent at noon and 75 per cent at 3 p.m. Humidity in mid-mountain forests appears to be higher than in the lowlands, while in the mossy forests there are periods when the whole belt is saturated.

Land tenure

The *Land Ordinance* 1962 of the Territory of Papua and New Guinea, which came into operation in 1963, replaced much land legislation previously in force separately in the two Territories. This simplification in legislation was a major step towards applying uniform principles to land tenure throughout the whole of the Territory of Papua and New Guinea. All land in the Territory other than native land or land subject to any estates, rights, titles, or interests in force from time to time is Administration land.

There is considerable variation throughout the Territory in the nature of customary ownership of land. In most areas some rights remain in the landholding group, and individuals within the group have limited rights of use, either for life or for a shorter period. Thus the normal system by which the rights of ownership in land use are acquired is by birth to a landholding group. Transfer of rights between individuals by sale and purchase appears to have been unusual in the past, but this practice is now an established custom in some localities and appears to be increasing. Inheritance may be based on either patrilineal or matrilineal descent, or both. In parts of the Territory, however, there is a tendency for the whole inheritance system to change, particularly in communities where it is based on matrilineal descent. Following a close study of the problems in relation to land holdings by indigenes, the Government has laid down the following broad principles of policy.

The ultimate and long-term objective in Papua and New Guinea is to introduce throughout the Territory a single system of land holding regulated by the central Administration by statute, administered by the Department of Lands of the central Administration and providing for secure individual registered titles after the pattern of the Australian system.

Only the Administration working through the Department of Lands, Surveys and Mines and through the Registrar of Titles may issue and register land titles.

Land subject to native custom remains subject only to native custom until it is taken out of custom either by acquisition by the Administration or by a process, provided for by the *Land (Tenure Conversion) Ordinance* 1963, of conversion of title to an individual registered title.

Upon either acquisition or conversion of title compensation is provided in respect of extinction of rights under native custom.

Land held under native custom may not be acquired outside of native custom by other than the Administration. Land may not be acquired by the Administration except for prescribed public purposes unless the native owners are willing to sell and the Administration is convinced, through its Department of District Administration, that the land is not required by them, and conversion of title from native custom to individual registered title may take place only if all those interested in the land under native custom consent to conversion and the method of conversion.

The services of Commissioners under the *Land Titles Commission Ordinance* 1962-1965 are used, as a first priority, on investigations into claims by the Administration that land is ownerless and may therefore be declared administration land, on investigation into the ownership under native custom of land proposed to be acquired by the Administration, on settlement of disputes about the ownership of land held under native custom, and on investigations into the rights held under native custom in land proposed to be converted to individual registered title. The Commissioners, as opportunity offers, continue investigations into the holding of land under native custom; the results of such investigations are recorded for use in connection with future acquisitions or conversions of title.

The legislation and administrative steps necessary to put the remainder of this policy into effect are well advanced.

Suitable crops

The crops which can be grown in Papua and New Guinea include coconuts, rubber, tea, coffee, cocoa, fibres, rice, pepper, tobacco, peanuts, kapok, cassava, pyrethrum, ginger, cinchona, nutmeg, vanilla, tropical fruits and vegetables, sago, and tung oil, but of these the only crops of any commercial importance are coconuts, cocoa, rubber, coffee, peanuts, and passion fruit. Major developments in the production of tea and pyrethrum are under way.

Non-indigenous rural production

In 1964-65 there were 1,219 holdings in use by non-indigenous persons, 338 being in Papua and 881 in New Guinea. The total area of these holdings was 1,014,158 acres, 272,223 in Papua and 741,935 in New Guinea. The following tables summarize the information available for principal activities.

TERRITORY OF PAPUA AND NEW GUINEA NUMBER OF HOLDINGS, AREA, PRODUCTION AND NEW PLANTINGS 1962 TO 1965

(Source: *Production Bulletin*, Part I: *Rural Industries*, Bureau of Statistics, Papua)

Year ended 31 March	Holdings	Area under crop(a)	Trees(a)	Production	New plantings	
					Area	Trees(b)
		acres	'000	tons	acres	'000
Coconuts—						
1962 . .	667	261,269	11,732	83,470	5,585	387
1963 . .	682	262,078	11,951	83,878	3,944	242
1964 . .	687	267,578	12,076	83,667	2,771	242
1965 . .	670	262,039	11,995	85,034	4,013	272
Cocoa—						
1962 . .	427	97,913	15,290	6,971	12,427	2,780
1963 . .	434	105,726	17,403	9,900	9,787	2,496
1964 . .	429	112,404	18,360	11,285	6,349	1,809
1965 . .	435	116,981	19,792	14,326	7,058	1,835
Coffee—						
1962 . .	236	9,369	5,343	1,986	1,578	931
1963 . .	242	10,305	6,002	2,830	1,078	809
1964 . .	247	10,851	6,865	3,032	890	800
1965 . .	261	12,229	7,860	3,374	1,345	1,162
Rubber—						
1962 . .	57	31,058	3,491	4,499	1,580	303
1963 . .	71	32,027	3,495	4,760	1,704	301
1964 . .	73	33,797	3,703	4,941	1,419	314
1965 . .	70	33,317	3,768	5,183	1,238	249

(a) Includes mature and immature areas.

(b) Includes replacements.

**TERRITORY OF PAPUA AND NEW GUINEA: AREA UNDER PRINCIPAL CROPS
AND CROP PRODUCTION, YEAR ENDED 31 MARCH 1965**

(Source: Production Bulletin, Part I: Rural Industries, Bureau of Statistics, Papua)

Crop	Recorded area in acres			Unit	Recorded production			Average yield per productive acre		
	Papua	New Guinea	Total		Papua	New Guinea	Total	Papua	New Guinea	Total
Permanent crops—										
Copra—										
Plantation . . .	35,290	226,749	262,039	Ton	9,277	75,757	85,034	0.30	0.40	0.39
Trade(a) . . .	..	..	..	Ton	799	3,958	4,757	..	..	..
Coconuts, for use as such . . .	..	..	..	Ton	86	545	631	..	..	..
Cacao—										
Plantation . . .	11,618	105,363	116,981	Cwt (beans)	10,937	275,591	286,528	1.78	4.14	3.94
Trade(a) . . .	..	..	..	Cwt (beans)	800	13,523	14,323	..	..	..
Coffee—										
Plantation . . .	649	11,579	12,228	Cwt (beans)	653	67,144	67,797	1.93	8.63	8.35
Trade(a) . . .	..	..	..	Cwt (beans)	27	7,359	7,386	..	..	..
Rubber . . .	32,915	402	33,317	Ton (dry)	(b)	(b)	5,183	(b)	(b)	0.22
Tea . . .	2	511	513	lb.	..	(b)	(b)	..	(b)	(b)
Grain crops—										
Maize . . .	82	204	286	Bus.	1,170	3,255	4,425	14.27	15.96	15.47
Rice . . .	170	8	178	Ton (paddy)	87	4	91	0.51	0.50	0.51
Sorghum . . .	49	588	637	Bus.	1,191	5,613	6,804	24.31	9.55	10.68
Crops for green fodder—										
Maize . . .	7	37	44	..	..	..	..	..	..	..
Sorghum . . .	14	15	29	..	..	..	..	..	..	..
Other . . .	11	56	67	..	..	..	..	..	..	..
Industrial crops—										
Peanuts . . .	16	7,682	7,698	Cwt (kernel)	72	29,266	29,338	4.50	3.81	3.81
Vegetable crops—										
For sale—										
Beans (green) . . .	12	26	38	Cwt	248	541	789	20.67	20.81	20.76
Tomatoes . . .	15	26	41	Cwt	588	816	1,404	39.20	31.38	34.24
Potatoes, English . . .	1	33	34	Cwt	25	1,003	1,028	25.00	30.39	30.24
Potatoes, sweet . . .	79	118	197	Cwt	2,621	10,404	13,025	33.18	88.17	66.12
Pumpkins . . .	57	37	94	Cwt	1,997	487	2,484	35.04	13.16	26.43
Other . . .	34	398	432	..	(b)	(b)	(b)	(b)	(b)	(b)
For consumption on holding—										
Potatoes, sweet . . .	771	3,489	4,260	Cwt	26,899	186,913	213,812	34.89	53.57	50.19
All other . . .	531	1,313	1,844	..	(b)	(b)	(b)	(b)	(b)	(b)
Orchard fruit—										
Citrus . . .	61	125	186	Bus.	263	1,046	1,309	10.96	15.85	14.54
Pineapples . . .	36	47	83	Doz.	1,392	1,853	3,245	51.56	63.90	57.95
Bananas . . .	171	450	621	Bus.	15,933	42,015	57,948	109.88	105.30	106.52
All other crops . . .	71	529	600	..	(b)	(b)	(b)	(b)	(b)	(b)
Total . . .	82,662	359,785	442,447		..	..	..	..	..	..

(a) Includes all produce acquired by purchase during the year from sources outside the holding. (b) Not available for publication.

Livestock on non-indigenous holdings

A number of British breeds of cattle are represented in Territory herds. For dairying Jersey and Australian Illawarra Shorthorns are most popular; Black Polled, Polled and Horned Shorthorns, and Red Polled cattle are raised for meat production. Under good management these breeds have done well in the Territory. There are a small number of Romney Marsh sheep at Nondugl in the highlands of New Guinea.

A central abattoir controlled by the Administration has been constructed at Lae to provide slaughtering facilities for beef producers in the Wau-Bulolo Area, the Markham and Ramu Valleys and part of the Eastern Highlands District. Provision has been made only for immediate needs, but the design and layout make it possible to expand the abattoir to handle smallgoods manufacture, snap freezing and canning as the need develops.

The following table shows the numbers of the various kinds of livestock on non-indigenously occupied holdings in Papua and New Guinea at 31 March 1965.

TERRITORY OF PAPUA AND NEW GUINEA: LIVESTOCK NUMBERS
31 MARCH 1965

(Source: *Production Bulletin*, Part I: *Rural Industries*, Bureau of Statistics, Papua)

Kind of stock	Papua	New Guinea	Total
Horses—			
One year and over	507	786	1,293
Foals	85	106	191
<i>Total horses</i>	<i>592</i>	<i>892</i>	<i>1,484</i>
Cattle—			
For dairying—			
Cows—in milk	375	1,429	1,804
dry	404	907	1,311
Heifers, one year and over	165	511	676
Heifer calves, under one year	163	352	515
Bulls, one year and over	83	244	327
<i>Total dairying cattle</i>	<i>1,190</i>	<i>3,443</i>	<i>4,633</i>
For beef—			
Cows and heifers, one year and over	4,181	12,904	17,085
Calves, under one year	1,590	3,803	5,393
Other, one year and over	1,749	4,791	6,540
Bulls, one year and over	251	619	870
<i>Total beef cattle</i>	<i>7,771</i>	<i>22,117</i>	<i>29,888</i>
Calves, under one year	95	566	661
<i>Total, all cattle</i>	<i>9,056</i>	<i>26,126</i>	<i>35,182</i>
Sheep—			
Rams, one year and over	22	8	30
Ewes	20	112	132
Wethers . . . . .	..	5	5
Lambs, under one year	5	18	23
<i>Total sheep</i>	<i>47</i>	<i>143</i>	<i>190</i>
Pigs—			
Boars	69	291	360
Breeding sows	291	908	1,199
Suckers, weaners, and slips	593	1,503	2,096
Other	135	490	625
<i>Total pigs</i>	<i>1,088</i>	<i>3,192</i>	<i>4,280</i>
Goats—			
Milkers	92	104	196
Others	531	617	1,148
<i>Total goats</i>	<i>623</i>	<i>721</i>	<i>1,344</i>
Poultry—			
Fowls	35,213	52,854	88,067
Ducks	2,579	3,565	6,144
Turkeys	163	619	782
Geese	10	178	188
<i>Total poultry</i>	<i>37,965</i>	<i>57,216</i>	<i>95,181</i>

Native agriculture

Most of the indigenous inhabitants of Papua and New Guinea are agriculturalists producing fruit and vegetables for their own consumption. The crops grown vary according to environment and altitude and include yams, taro and sweet potatoes, coconuts, bananas, papaws, maize, sugar cane, cassava, beans, peanuts, rice, cucurbits, and tobacco. Sago is the staple food in the extensive semi-inundated areas which occur along the lower valleys of the major rivers. In these areas it is cut largely from naturally occurring stands. In other parts of the country small areas of sago are grown along stream banks and in swampy patches and are regarded as a reserve in times of poor harvest. In recent years the indigenes have taken up the production of introduced crops such as peanuts, rice, cucurbits, and maize for their own consumption, and cocoa, coffee and pyrethrum for export. Some small-scale rubber growing is now being undertaken. In coconut areas large quantities of copra are produced. In 1964-65 native production of copra was 33,602 tons and that of cocoa and coffee 5,109 tons and 3,965 tons respectively. In many localities the indigenes follow a farming system known as bush fallowing rotation, which is described in Year Book No. 48 and earlier issues.

The growing of food is done both by the men and the women. The division of work is usually clearly defined within the village itself, but this division is not necessarily the same in all areas. Generally the felling of forests is done by the men, and carrying the harvested food home to the village is done by the women. Other work, however, such as cultivating, planting and weeding may be done by either men or women according to the customs of the particular village or area.

The advancement of native agriculture for local food supply and improved land use in village gardens as well as for economic production of crops for sale have a high priority in Government policy for the Territory. A five-year (1962-63 to 1966-67) programme for intensification of agricultural work among the indigenous inhabitants is being implemented.

Survey of indigenous agriculture and ancillary surveys, 1961-62

A survey of the agriculture of indigenes of Papua and New Guinea was carried out in 1961-62 by the Territory Bureau of Statistics in conjunction with the Commonwealth Bureau of Census and Statistics and the Territory Department of Agriculture, Stock and Fisheries. The survey was designed to meet the requirements of the 1960 World Census of Agriculture, as set out by the Food and Agriculture Organization of the United Nations, and to provide basic data for the use of the administration. It was concerned primarily with subsistence crops and was carried out by sampling methods*. In addition to the main survey, two ancillary surveys were held. These related to indigenously owned coconut palms and auxiliary primary production, and were used to gauge the extent of dependence on sources of foodstuffs not measured in the main surveys. A comprehensive report on the surveys was published by the Territory Statistician in 1963, and reference should be made to this for further information. It is planned to hold further surveys of indigenous agriculture in the Territory of Papua and New Guinea in connection with future World Censuses of Agriculture. The following tables give a summary of the principal results of the survey.

TABLE 1.—TERRITORY OF PAPUA AND NEW GUINEA: AREA OF GARDENS IN USE BY INDIGENES(a) DURING SURVEY YEAR 1961-62

Garden area	Area ('000 acres)			Area per person (acres)		
	Papua	New Guinea	Papua and New Guinea	Papua	New Guinea	Papua and New Guinea
At time of first visit—						
Cultivated	74	271	345	0.17	0.22	0.21
Newly cleared not yet cultivated	7	15	22	0.01	0.01	0.01
Total	81	286	367	0.18	0.23	0.22
During the survey year—						
Brought under cultivation	43	141	184	0.10	0.11	0.11
Cleared	38	140	178	0.09	0.11	0.10
Entire area in use at any time during the survey year	119	426	545	0.27	0.34	0.32

(a) These figures refer only to indigenous inhabitants of the Territory living in villages other than villages in the Port Moresby Urban Area, and therefore do not include those living in towns or on plantations.

* See pages 1108-10.

TABLE 2.—TERRITORY OF PAPUA AND NEW GUINEA: AREAS UNDER PRINCIPAL CROPS AT FIRST VISITS AND AREAS PLANTED TO PRINCIPAL CROPS DURING SURVEY YEAR 1961-62
(’000 acres)

Crop	First visits			New plantings during survey year		
	Papua	New Guinea	Papua and New Guinea	Papua	New Guinea	Papua and New Guinea
Bananas . . .	11.9	48.3	60.2	7.2	28.7	35.9
Sugar cane . . .	4.3	7.7	12.0	2.6	5.3	7.9
Taro <i>Colocasia(a)</i> . .	10.6	34.0	44.6	17.7	36.7	54.4
Taro <i>Xanthosoma(b)</i> .	0.8	9.2	10.0	0.5	5.6	6.1
Yams(c) . . .	6.6	11.3	17.9	8.0	10.4	18.4
Tapioca . . .	0.5	1.8	2.3	0.6	2.3	2.9
Pineapples . . .	0.2	0.4	0.6	0.2	0.2	0.4
Maize . . .	4.2	11.1	15.3	4.5	32.9	37.4
'Pit' or 'pit pit'(d) .	4.8	7.7	12.5	1.2	6.3	7.5
'Highland pit pit'(e) .	3.1	3.4	6.5	1.2	1.8	3.0
'Aibika'(f) . . .	0.2	1.9	2.1	0.4	1.6	2.0
Wing beans(g) . . .	..	2.7	2.7	..	3.2	3.2
Other pulses(h) . . .	0.1	0.8	0.9	0.1	1.4	1.5
Sweet potato . . .	31.6	146.0	177.6	19.2	85.8	105.0
Rice . . .	0.6	1.2	1.8	1.2	0.8	2.0
Peanuts . . .	..	2.5	2.5	..	6.1	6.1
Tobacco . . .	..	..	..	0.2	0.2	0.4

(a) Includes other types resembling taro *Colocasia*. (b) Includes other types resembling taro *Xanthosoma*.
(c) Includes mammies. (d) *Saccharum edule*. (e) *Setaria palmaefolia*. (f) *Hibiscus manihot*.
(g) *Psophocarpus tetragonolobus*. (h) Excludes wing beans and peanuts.

TABLE 3.—TERRITORY OF PAPUA AND NEW GUINEA: PRODUCTION OF PRINCIPAL CROPS AND OF SAGO DURING SURVEY YEAR 1961-62

Crop	Production ('000 tons)			Ounces per head per day		
	Papua	New Guinea	Papua and New Guinea	Papua	New Guinea	Papua and New Guinea
Bananas . . .	157	453	610	35.0	35.4	35.3
Sugar cane . . .	96	211	307	21.4	16.5	17.7
Taro <i>Colocasia(a)</i> . .	92	220	312	20.5	17.2	18.0
Taro <i>Xanthosoma(b)</i> .	10	136	146	2.2	10.6	8.4
Yams(c) . . .	91	142	233	20.3	11.1	13.5
Tapioca . . .	16	36	52	3.6	2.8	3.0
Pineapples . . .	2	3	5	0.4	0.2	0.3
Maize(d) . . .	15	46	61	3.3	3.6	3.5
Sweet potato . . .	237	964	1,201	52.8	75.3	69.4
Rice(e) . . .	1	2	3	0.2	0.2	0.2
Peanuts(e) . . .	..	3	3	..	0.2	0.2
Sago . . .	75	40	115	16.7	3.1	6.7

(a) Includes other types resembling taro *Colocasia*. (b) Includes other types resembling taro *Xanthosoma*.
(c) Includes mammies. (d) Weight of immature cobs as harvested. (e) Includes production for sale as shown in the table on page 1108.

TABLE 4.—TERRITORY OF PAPUA AND NEW GUINEA: IMPLEMENTS AND LIVE-STOCK OWNED BY INDIGENES^(a) AT TIME OF FIRST VISITS DURING SURVEY YEAR 1961-62

Type of implement or livestock	Number ('000)			Number per 100 persons		
	Papua	New Guinea	Papua and New Guinea	Papua	New Guinea	Papua and New Guinea
Implements—						
Indigenously-constructed canoes .	42	19	61	10	2	4
Fish nets . . .	29	61	90	7	5	5
Fish traps . . .	27	72	99	6	6	6
Bush knives . . .	132	549	681	30	44	40
Adzes and axes . .	136	488	624	31	39	37
Spades, shovels and forks . . .	31	414	445	7	33	26
Livestock—						
Pigs . . .	149	816	965	34	65	57
Poultry . . .	76	621	697	17	49	41
Goats . . .	..	15	15	..	1	1

(a) These figures refer only to indigenous inhabitants of the Territory living in villages other than villages in the Port Moresby Urban Area, and therefore do not include those living in towns or on plantations.

TABLE 5.—TERRITORY OF PAPUA AND NEW GUINEA: AREAS UNDER MAJOR INDIGENOUSLY-PRODUCED CASH CROPS, JUNE 1961 AND 1962

(Source: Department of Agriculture, Stock and Fisheries)

(Acres)

Crop	Area at 30 June 1961			Area at 30 June 1962		
	Papua	New Guinea	Papua and New Guinea	Papua	New Guinea	Papua and New Guinea
Cacao . . .	1,200	19,800	21,000	2,530	20,240	22,770
Coffee—						
Arabica . . .	210	11,000	11,210	290	12,070	12,360
Robusta . . .	1,080	600	1,680	1,230	730	1,960
<i>Total, coffee</i> . .	<i>1,290</i>	<i>11,600</i>	<i>12,890</i>	<i>1,520</i>	<i>12,800</i>	<i>14,320</i>
Rice (for sale) . .	100	700	800	75	625	700
Peanuts (for sale) .	90	1,150	1,240	12	833	845
Rubber . . .	326	..	326	607	..	607

TABLE 6.—TERRITORY OF PAPUA AND NEW GUINEA
INDIGENOUSLY-OWNED COCONUT PALMS AT TIME OF
THIRD VISITS DURING SURVEY YEAR 1961-62
(^{'000})

Maturity and spacing of palms	Papua	New Guinea	Papua and New Guinea
Immature—			
Well spaced(a)	1,272	3,956	5,228
Crowded(b)	1,541	4,836	6,377
Overcrowded(c)	720	1,077	1,797
<i>Total, immature</i>	3,533	9,869	13,402
Mature—			
Well spaced(a)	2,163	3,084	5,247
Crowded(b)	2,181	2,415	4,596
Overcrowded(c)	441	399	840
<i>Total, mature</i>	4,785	5,898	10,683
All palms—			
Well spaced(a)	3,435	7,040	10,475
Crowded(b)	3,722	7,251	10,973
Overcrowded(c)	1,161	1,476	2,637
Grand total	8,318	15,767	24,085

(a) A well spaced palm is one which is 20 feet or more distant from its nearest neighbour of similar or greater maturity. (b) A crowded palm is one which is between 10 and 20 feet distant from its nearest neighbour of similar or greater maturity, unless it is not bearing because of overcrowding. (c) An overcrowded palm is one which is less than 10 feet distant from its nearest neighbour of similar or greater maturity or one which is not bearing because of overcrowding.

TABLE 7.—TERRITORY OF PAPUA AND NEW GUINEA
INDIGENOUSLY-OWNED CACAO AND COFFEE TREES

(Source: Department of Agriculture, Stock and Fisheries)

(^{'000})

Crop	Number at 30 June 1961			Number at 30 June 1962		
	Papua	New Guinea	Papua and New Guinea	Papua	New Guinea	Papua and New Guinea
Cacao—						
Mature	28	2,420	2,448	67	3,459	3,526
Immature	220	1,951	2,171	455	1,014	1,469
<i>Total, cacao</i>	248	4,371	4,619	522	4,473	4,995
Coffee—						
Mature	n.a.	n.a.	n.a.	384	4,052	4,436
Immature	n.a.	n.a.	n.a.	447	2,577	3,024
<i>Total, coffee</i>	700	6,010	6,710	831	6,629	7,460

TABLE 8.—TERRITORY OF PAPUA AND NEW GUINEA
INDIGENOUS PRODUCTION OF CASH CROPS

(Source: Department of Agriculture, Stock and Fisheries)

Crop	1960-61			1961-62		
	Papua	New Guinea	Papua and New Guinea	Papua	New Guinea	Papua and New Guinea
	tons	tons	tons	tons	tons	tons
Copra	5,850	20,660	26,510	5,819	23,032	28,851
Cacao beans	12	1,908	1,920	20	2,133	2,153
Coffee beans	42	710	752	56	1,424	1,480
Rice (for sale) . . .	48	352	400	35	307	342
Peanuts (for sale) . .	23	295	318	3	213	216
Passion fruit(a) . . .	..	418	418	..	579	579
Rubber	24	..	24	24	..	24
Gums and resins . . .	76	..	76	85	..	85
Truck crops(b) . . .	800	12,000	12,800	3,000	10,000	13,000
	lb.	lb.	lb.	lb.	lb.	lb.
Tobacco . . . . .	..	4,100	4,100	..	7,360	7,360

(a) Passion fruit are processed into juice and pulp.
sale.

(b) Indigenous crops (mainly root crops) grown for

Accuracy of survey results. As the estimates obtained from the surveys of indigenous agriculture and indigenously-owned coconut palms are based on samples they will generally differ from the results which would have been obtained from complete censuses of the areas covered by the surveys, using the same operators and procedures. Variations of this kind occur by chance and are known as sample errors. In addition to these there are non-sample errors of two kinds. One of these is caused by the exclusion of certain areas (i.e. those not fully under Administration control and those affected by the disease kuru) from any possibility of selection and the imputation of figures for these areas on the basis of similar areas which were given a chance of selection. The other kind of non-sample error arises from a few unavoidable subjective elements in the field procedures and from the use of yield factors and crop area conversion factors at the processing stage.

The standard error of an estimate is a measure of the sampling variability. Estimated standard error of all the non-derived statistics given in Tables 1-4 and 6 are shown in Tables 1(s)-4(s) and 6(s) respectively on pages 1109-10 as percentages of the estimates to which they refer. Where the percentage standard error is relatively small, say less than 10 per cent, there are about two chances in three that the estimate would differ from the figure which would have been obtained from a comparable complete enumeration by less than the standard error; about nineteen in twenty that the difference would be less than twice the standard error; and about ninety-nine in 100 that the difference would be less than two and a half times the standard error. Larger percentage standard errors, although still measures of sampling variability, cannot be assumed to obey this relationship. Standard errors greater than 25 per cent of the estimate indicate that only an order of magnitude has been obtained for the relevant item.

The standard errors of many items shown are much larger than would normally be desired for general purpose publication. These high standard errors are partly attributable to the necessarily small sample size, and partly to the high intrinsic variability between families and between villages—even after allowance is made for the different numbers of persons involved in any comparison. The decision to publish these figures, despite the high sampling errors attached to many of them, was taken on the ground that no relevant quantitative information was available from any other source. It is evident that estimates to which high standard errors are attached must be treated with very considerable caution.

The random component of the error introduced by the exclusion of certain areas from any possibility of selection has been allowed for in calculating the standard errors. The residual bias, analogous to non-response bias in other surveys, is believed to be small compared with the sampling variability.

Of the remaining non-sample errors, the most important are those introduced by the use of crop area conversion factors and yield factors in obtaining estimates of crop areas and production.

Tables 5, 7 and 8 are derived from complete collections by the Territory Department of Agriculture, Stock and Fisheries and sampling error therefore does not apply.

ESTIMATED STANDARD ERROR

TABLE 1(s).—AREA OF GARDENS IN USE BY INDIGENES DURING SURVEY YEAR 1961-62

Garden area	Estimated standard error of area (per cent)		
	Papua	New Guinea	Papua and New Guinea
At time of first visit—			
Cultivated	14	6	5
Newly cleared, not yet cultivated	33	27	21
Total	14	5	5
During the survey year—			
Brought under cultivation	14	7	6
Cleared	15	7	7
Entire area in use at any time during the survey year	14	5	5

TABLE 2(s).—AREAS UNDER PRINCIPAL CROPS AT FIRST VISITS AND AREAS PLANTED TO PRINCIPAL CROPS DURING SURVEY YEAR 1961-62

Crop	Estimated standard error of area (per cent)					
	First visits			New plantings during survey year		
	Papua	New Guinea	Papua and New Guinea	Papua	New Guinea	Papua and New Guinea
Bananas	42	19	17	9	12	9
Sugar cane	16	17	12	13	14	10
Taro <i>Colocasia</i>	16	16	13	15	15	11
Taro <i>Xanthosoma</i>	35	35	32	43	20	19
Yams	17	22	15	36	23	20
Tapioca	40	18	17	41	23	20
Pineapples	27	35	26	25	29	20
Maize	68	18	23	59	13	14
'Pit' or 'pit pit'(a)	95	34	42	58	37	32
'Highland pit pit'(b)	45	26	26	25	23	17
'Aibika'(c)	79	21	21	44	15	15
Wing beans(d)	..	50	50	..	40	40
Other pulses	54	24	23	62	21	20
Sweet potato	13	8	7	11	9	8
Rice	108	59	54	108	56	67
Peanuts	..	24	23	..	38	37
Tobacco	..	..	..	108	52	56

(a) *Saccharum edule*. (b) *Setaria palmaefolia*. (c) *Hibiscus manihot*.
 (d) *Psophocarpus tetragonolobus*.

TABLE 3(s).—PRODUCTION OF PRINCIPAL CROPS AND OF SAGO DURING SURVEY YEAR 1961-62

Crop	Estimated standard error of production (per cent)		
	Papua	New Guinea	Papua and New Guinea
Bananas	46	20	19
Sugar cane	17	13	10
Taro <i>Colocasia</i>	9	13	10
Taro <i>Xanthosoma</i>	36	42	40
Yams	20	16	13
Tapioca	43	18	18
Pineapples	29	39	26
Maize	56	14	17
Sweet potato	15	12	10
Rice	108	52	49
Peanuts	..	30	30
Sago	20	19	15

TABLE 4(s).—IMPLEMENTS AND LIVESTOCK OWNED BY INDIGENES AT TIME OF FIRST VISITS DURING SURVEY YEAR 1961-62

Type of implement or livestock	Estimated standard error of number (per cent)		
	Papua	New Guinea	Papua and New Guinea
Implements—			
Indigenously-constructed canoes	18	38	17
Fish nets	52	61	45
Fish traps	30	58	43
Bush knives	11	6	5
Adzes and axes	9	5	5
Spades, shovels and forks	21	22	20
Livestock—			
Pigs	9	10	9
Poultry	34	16	15
Goats . . . . .	..	72	72

TABLE 6(s).—INDIGENOUSLY-OWNED COCONUT PALMS AT TIME OF THIRD VISITS DURING SURVEY YEAR 1961-62

Maturity and spacing of palms	Estimated standard error of number of palms (per cent)		
	Papua	New Guinea	Papua and New Guinea
Immature—			
Well spaced	35	12	13
Crowded	22	17	14
Overcrowded	43	22	22
<i>Total immature</i>	<i>27</i>	<i>10</i>	<i>10</i>
Mature—			
Well spaced	22	10	11
Crowded	30	16	17
Overcrowded	41	17	23
<i>Total mature</i>	<i>23</i>	<i>10</i>	<i>12</i>
All palms—			
Well spaced	26	10	11
Crowded	24	14	13
Overcrowded	40	19	21
Grand total	23	9	10

Co-operative societies

Co-operatives are under the supervision and guidance of a Registry of Co-operatives within the Department of Trade and Industry, and trained staff are stationed in districts throughout the Territory. Societies fall into two main categories, primary and secondary. The primary consist of marketing and consumer retailing bodies dealing directly with individual members. A society which combines both these activities is termed a dual purpose primary. Secondary organization is represented by associations of societies, formed to achieve an amalgamation of purchasing power in retail consumer store operation and marketing volume in relation to agricultural production, and to concentrate capital to facilitate the purchase of large assets such as shipping, land transport, agricultural machinery, etc.

For the year ended 31 March 1965 primary societies numbered 297, with a membership of 94,094, a total capital of \$1,580,706, and a turnover of \$3,865,120. Secondary organizations numbered 14, with 239 member societies, a total capital of \$593,776, and a turnover of \$1,261,834.

Native labour

At 31 March 1965 approximately 92,000 indigenous persons were engaged in wage employment, 63,000 of these being employed by private enterprise.

Minimum wages and conditions of employment for indigenous workers are prescribed under the *Native Employment Ordinance* 1958-1963. An employer is required to pay a minimum cash wage to every worker employed by him and provide the worker, and his family in appropriate

cases, with food, clothing, cooking and eating utensils, towels, soap and other articles, medical attention, and, where necessary, accommodation. The major portion of the workers employed under the conditions prescribed under the Ordinance are unskilled rural workers.

Industrial agreements negotiated between representatives of workers and employers in recent years have covered an increasing number of workers in urban areas. These agreements, covering the majority of workers in the towns of Port Moresby, Rabaul, Lae, Madang, Wewak, and Goroka, provide for the payment of a total cash wage, as distinct from the payment of cash-and-kind to the workers covered by them. The agreements are registered as awards under the Territory's Industrial Relations Ordinance.

There has been a continued expansion of the trade union movement since industrial legislation for the Territory was introduced in March 1963. In March 1965 twelve associations with a membership of over 12,000 had been registered as industrial organizations of workers under the Industrial Organizations Ordinance.

Provision is made in other legislation for the establishment and maintenance of modern standards of industrial safety and for the payment of compensation for injury or disease arising out of, or in the course of, employment.

A local apprenticeship scheme was inaugurated in 1955. An Apprenticeship Board, comprising representatives of private enterprise and government, advises the Administrator on apprenticeship matters. At 30 June 1965 a total of 206 apprentices had already received trade certificates, and 577 were being trained in 1964-65.

A Department of Labour handles matters relating to industrial organizations, industrial relations, industrial safety, and workers' compensation, carries out labour inspections, and provides industrial services and training in industrial fields.

Secondary industries

Secondary industries which have been established in the Territory are most frequently of the type associated with the elementary processing for export of local products such as copra, rubber, cocoa, coffee, passion-fruit, and timber on or near the plantations. There has been a gradual growth in the manufacture of more highly processed products, and industries already established include a paint factory, cigarette factory, twist tobacco factories, a copra crushing mill, a plywood factory, bakeries, biscuit factories, soft drink factories, and breweries. Large service industries already well established include air, sea, and land transport services and the building industry, which is serviced by sawmilling, joinery, furniture, and metal industries, concrete products manufactures, brickworks, etc. A wide variety of maintenance facilities is also available to service the various Territory industries, including engineering workshops, slipways, etc.

TERRITORY OF PAPUA AND NEW GUINEA: SUMMARY OF FACTORY OPERATIONS, 1963-64 AND 1964-65

(Source: *Production Bulletin*, Part II: *Secondary Industries*, Bureau of Statistics, Papua)

	Papua		New Guinea		Total	
	1963-64	1964-65	1963-64	1964-65	1963-64	1964-65
	No.	No.	No.	No.	No.	No.
Factories(a)	122	138	232	259	354	397
Average number employed(b)	2,756	3,241	4,822	6,165	7,578	9,406
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Salaries and wages paid(c)	2,504	2,961	3,649	4,300	6,153	7,261
Value of power, fuel, light, etc. used(d)	356	399	846	930	1,202	1,329
.. .. materials used(e)	4,242	5,422	12,876	15,811	17,118	21,233
.. .. production(f)	6,184	6,350	8,949	10,851	15,133	17,201
.. .. output(g)	10,782	12,171	22,671	27,593	33,453	39,764
.. .. land and buildings(h)	4,028	4,170	5,082	5,614	9,110	9,784
.. .. plant and machinery(h)	6,068	6,422	6,300	6,783	12,368	13,205

(a) Any factory, workshop or mill in which four or more persons are employed or power other than hand is used. (b) Average weekly employment including working proprietors. (c) Excludes drawings by working proprietors. (d) Includes water and lubricating oil. (e) Includes value of containers, packing, etc., tools replaced, and repairs to plant. (f) Value added in process of manufacture (i.e. value of output less value of materials and power, fuel, etc. used). (g) Value of goods produced including amounts received for repair work and other work done. (h) Depreciated or book value at end of year, including estimated value of rented premises and machinery.

**TERRITORY OF PAPUA AND NEW GUINEA: FACTORY OPERATIONS
BY CLASS OF INDUSTRY, 1964-65**

(Source: Production Bulletin, Part II: Secondary Industries, Bureau of Statistics, Papua)

	Class of industry				Total
	Industrial metals, machines and con- veyances	Food, drink and tobacco	Sawmills, plywood and joinery	Other industries	
Factories	179	61	110	47	397
Employees—					
Non-indigenous	813	141	355	262	1,571
Indigenous	1,793	1,958	3,017	1,067	7,835
Total employees	2,606	2,099	3,372	1,329	9,406
	\$'000	\$'000	\$'000	\$'000	\$'000
Salaries and wages paid	3,177	879	1,963	1,242	7,261
Value of power, fuel and light, etc.	203	265	236	626	1,329
" " materials used	4,870	5,751	3,277	7,335	21,233
" " production	4,383	4,354	4,723	3,740	17,201
" " output	9,456	10,370	8,236	11,702	39,764

See footnotes to previous table.

Finance

Revenue and expenditure

Information on the financial operations of each Territory will be found on pages 1117-18 and 1123-4.

Taxation

The main forms of taxation are income tax, personal tax and import duties.

Income Tax was imposed on 1 August 1959 to operate from 1 July 1959. The scale of taxation is about 50 per cent of the tax payable on the same taxable income in Australia. Deductions for dependants the taxpayer is maintaining and maximum deductions for medical, dental and educational expenses are considerably higher than those allowed in Australia. The tax on public companies is at a flat rate of 20c in the \$1, which is little more than half the predominant rate of company tax in Australia, while on private companies the rate is 12.5c in the \$1 for the first \$10,000 and 17.5c in the \$1 for the remainder, and generally comparable deductions are allowed. On 1 January 1958 a *Personal Tax* was introduced for all males (including non-indigenous) in Papua and New Guinea of 18 years of age and over. The maximum tax is \$4 per annum; the tax assessed is subject to the taxpayers' ability to pay, and consequently large areas have been exempted. Native Local Government Councils (which are formed voluntarily by the indigenes) are, however, empowered to levy taxes on villagers for the purpose of providing for local services carried out by the Councils. These taxes are set off against the indigene's Personal Taxation.

The present *Customs Tariff* provides high revenue rates on imports of ale, spirits, tobacco and cigarettes, timepieces, cigarette papers, fancy goods, and jewellery, but allows entry of most necessities affecting living and building costs duty free or at a low rate of duty. Under the Customs Tariff, plant, machinery and chemicals to be used mainly for industrial and developmental purposes are generally duty-free. A by-law covers goods imported by passengers. No preferential rates are specified in the schedule. Export duties imposed on copra, cocoa, rubber, mother-of-pearl, trochus and burgos shell, and gold were repealed in July 1959.

Provision is made in the *Australian Customs Tariff (Papua and New Guinea Preference) 1936* for the free entry into Australia of certain goods produced in and imported direct from the Territory (see the chapter Oversea Transactions), and a proclamation of 25 September 1935 exempted from primage duty goods produced or manufactured in the Territory.

To encourage the development of secondary industry, complete exemption from Territory income tax for a period of five years may be granted to companies engaging in approved new pioneer industries. Exemptions from Australian income tax may also be granted on dividends paid out of the income of such companies to Australian residents.

PAPUA

General description

Area, etc.

Papua lies wholly within the tropics. The northernmost point touches 5° S. Latitude; its southernmost portion, comprising Tagula and Rossel Islands, lies between 11° S. and 12° S. latitude. It is separated from Australia by Torres Strait. The length of Papua from east to west is upwards of 930 miles; towards either end the breadth from north to south is about 320 miles, but about the centre it is considerably narrower. The Territory comprises also the islands of the Trobriand, Woodlark, D'Entrecasteaux, and Louisiade groups. The length of coast-line is estimated at 3,664 miles—1,728 on the mainland and 1,936 on the islands. The total area is 86,100 square miles, of which 83,325 are on the mainland and 2,775 on the islands. A description of the physical characteristics of the Territory appears in previous issues of the Year Book (see No. 18, p. 633).

Administration

Particulars of the early administration of Papua are given in Year Book No. 19, page 576. The Territory was placed under the authority of the Commonwealth on 1 September 1906 by proclamation issued in pursuance of Letters Patent of 18 March 1902 and was accepted by the Commonwealth by the *Papua Act* 1905, which came into force by virtue of the aforesaid proclamation. The transfer was made under the authority of Section 122 of the Constitution. The Territory is under the control of the Commonwealth, but not included within it, and is divided into six administrative districts, Southern Highlands, Western, Gulf, Central, Milne Bay, and Northern.

Population

Non-indigenous population

At the Census of 30 June 1961 the non-indigenous population of Papua was 5,490 males, 4,304 females, 9,794 persons. The total non-indigenous population at the Censuses of 1921, 1933, 1947, and 1954 was, respectively, 2,078, 2,173, 3,239, and 6,313 persons. At 30 June 1965 the total non-indigenous population was 14,040. The European population of Papua increased slowly, and with some reversals in trend, from less than 700 in 1906, the year in which the Territory came under Commonwealth control, to 1,343 at the Census of 1921. At the 1961 Census it amounted to 8,260 persons.

Indigenous population

Within the major division Melanesian, into which most indigenous inhabitants of the Territory are classified, a distinction may be made between a Melanesian type and a Papuan type, the former representative of the eastern mainland and the island archipelagos to the east and south-east, and the latter representative of the western third and the interior of the Territory. Some negro traits have been noted in a few of the inland mountain groups. The enumerated and estimated population of the Territory of Papua at 30 June 1965 totalled 559,397 persons. This comprised 545,597 enumerated persons and 13,800 estimated. The total number was distributed through districts as follows: Southern Highlands, 181,066; Western, 59,161; Gulf (including the former Delta district), 61,203; Central, 109,061; Milne Bay, 95,841; and Northern, 53,065.

Land tenure

The basic principles applying to land tenure in Papua are the same as those applying to the whole of the Territory of Papua and New Guinea described on pages 1100-1. At 30 June 1965, of the total area of Papua, 55,104,000 acres, only 1,895,856 acres had been alienated. The distribution of alienated land at 30 June 1965 according to tenure was as follows: held by private non-indigenous inhabitants, freehold, 24,280 acres, leasehold, 371,864 acres; native reserves, 67,257 acres; other Administration land, including land reserved for public purposes, 1,432,455 acres.

Although a small amount of freehold land exists in Papua, present legislation does not provide for the granting of estates in freehold. Leases of various kinds may be granted by the Administration. The principal types of leases available are agricultural leases, pastoral leases, leases of town allotments, business leases and residence leases of other than town allotments, and various forms of special leases and licences over land. Leasehold terms are liberal, and, in general, leases may be granted for periods of up to ninety-nine years. Rent is based on the unimproved value of the land.

Leases of Crown land are granted by the Administrator following a land use examination, advertisement of leases available, and consideration of applications by the Land Board. Dealings in privately-owned land are a matter for private treaty. Native-owned land, however, cannot be acquired or leased from the native owners by private individuals. The Administration alone may purchase native-owned land, and then only if the owners are willing to sell and the Administration is satisfied that the owners do not require, and are not likely to require, the land.

The registration of titles, interests and dealings in alienated land is provided for under the *Real Property Ordinance* 1913-1962 modelled on the Torrens system of land registration.

Production

Primary production

The products of the Territory are obtained principally from its agricultural, forestry, mining, and fishing industries. Native subsistence agriculture, fishing and hunting produce most of the food requirements of the indigenous population. The main native agricultural products are taro, yams, sweet potatoes, bananas, and papaws. Peanuts are becoming of increasing importance in native diet. Non-indigenous enterprise produces most of the commodities exported. Indigenes, however, produce copra for export, while native enterprise in other fields of agricultural production for export purposes, e.g. cocoa and coffee, is undertaken. The principal agricultural products of Papua for the export trade are copra and rubber. Native production of copra is increasing. In 1964-65 nearly 17.5 million super. feet of logs were produced. The main products of fisheries exported from Papua are trochus shell and mother-of-pearl. Gold, manganese, zinc-lead, and copper ores have been mined in commercial quantities in the past, but current production is limited.

For information on the agricultural and animal industries, which for the sake of convenience covers the Territories of Papua and New Guinea singly and combined, see pages 1101-10. The following paragraphs relate to forestry, mining, fisheries, and water-power resources in Papua.

Forestry

A general description of the forest policy, which applies in Papua as well as in the Trust Territory of New Guinea, is given under the heading, Timber, on page 1120.

Mixed species tropical rain forest covers most of Papua, although north-east of Port Moresby there is an area of monsoonal savannah country. Because of the mixed nature of the timbers in any one area, their utilization on an economical basis is somewhat difficult. Mangroves occur in large areas fringing the Gulf of Papua. Forestry field work is carried out in Papua with a view to assessing the forest resources available and also to survey areas subsequently made available for cutting.

At 30 June 1965 fifteen permits and twenty-six licences were current. The total areas of forest involved were 228,919 acres and 64,811 acres respectively. The total number of mills was twenty, and the total sawn-timber produced for the year was 6.8 million super. feet, most of which was used locally.

Mining

Although a large number of minerals have been found in Papua, including platinum, gold, silver, copper, tin, lead, zinc, cinnabar, iron, osmiridium, manganese, sulphur, chromite, gypsum, and lignite, current mineral production is not of economic importance. Before the 1939-45 War gold was an important item in the Territory's production, but it has since dwindled to insignificance. Large quantities of copper ore were mined and exported up to 1940. Good samples of galena (sulphide of lead) have been obtained, but other minerals are not found in commercial quantities.

Since the search for oil began in Papua in 1911 approximately \$73 million has been spent. The existence of petroleum has been proved at scattered intervals over a large area, but commercial quantities have not been discovered. At 30 June 1965 fourteen prospecting permits and licences were effective under the provisions of the *Petroleum (Prospecting and Mining) Ordinance* 1951-1962. Oil prospecting is confined mainly to the Gulf and Western Districts, including off-shore areas in the Gulf of Papua.

Fisheries

Surveys have been carried out of the fisheries resources of Papua. These have been demonstrated to be considerable, and efforts are being made to increase the present small degree of utilization. Assistance is also being given by the Administration in improving the indigenous methods of fishing, and the use of improved gear is being encouraged by extension workers. Shell fishing, particularly trochus, provides the main cash return, exports being valued at \$26,000 in 1964-65.

Water power

Most of the rivers in Papua carry a large volume of water from a great height over a relatively short distance, thereby offering opportunities for the installation of hydro-electric power plants. It is estimated that at least ten million horse-power could be developed.

Trade, transport and communication**Value of imports and exports**

TERRITORY OF PAPUA: IMPORTS AND EXPORTS
1960-61 TO 1964-65
 (\$'000)

	1960-61	1961-62	1962-63	1963-64	1964-65 p
<i>Total imports(a)</i>	19,871	19,702	21,438	27,617	32,733
Exports—					
Domestic exports	4,936	4,780	5,049	5,318	6,075
Re-exports	2,842	1,460	1,625	1,857	2,971
<i>Total exports</i>	7,778	6,239	6,675	7,175	9,046

(a) Includes outside packages.

Country of origin or destination

TERRITORY OF PAPUA: COUNTRY OF ORIGIN OF IMPORTS
1960-61 TO 1964-65
 (\$'000)

Country of origin	1960-61	1961-62	1962-63	1963-64	1964-65 p
Australia	12,994	12,142	13,581	17,568	20,305
Canada	18	67	36	60	73
Germany (Federal Republic)	337	373	420	582	567
Hong Kong	672	833	850	966	1,011
Indonesia	665	642	807	862	493
Japan	1,005	1,047	1,018	1,575	1,977
United Kingdom	1,476	1,446	1,546	1,648	2,186
United States of America	1,395	1,354	1,154	1,775	2,924
Other countries	1,309	1,797	2,026	2,580	3,197
Total	19,871	19,702	21,438	27,617	32,733

TERRITORY OF PAPUA: COUNTRY OF DESTINATION OF EXPORTS
1960-61 TO 1964-65
 (\$'000)

Country of destination	1960-61	1961-62	1962-63	1963-64	1964-65 p
Australia	5,789	4,858	5,351	5,752	6,836
United Kingdom	895	846	728	650	1,220
Other countries	1,095	536	597	773	990
Total	7,778	6,239	6,675	7,175	9,046

Principal commodities exported

TERRITORY OF PAPUA: PRINCIPAL DOMESTIC EXPORTS, 1960-61 TO 1964-65
(\$'000)

Commodity	1960-61	1961-62	1962-63	1963-64	1964-65p
Rubber	2,584	2,408	2,331	2,434	2,551
Copra	2,065	1,891	2,085	1,968	2,805
Cocoa beans	61	44	48	100	71
Gold	2	1	1	1	2
Shell (marine)	39	55	21	24	26
Crocodile skins	103	254	315	529	392
Other	81	127	249	263	228
Total	4,936	4,780	5,049	5,318	6,075

Shipping

In 1964-65, 247 British vessels and 42 of other nationalities called at Territory ports and discharged 179,071 tons of cargo and loaded 31,455 tons.

Regular passenger and freight services operate between Australia, New Guinea and Papua. Vessels trading between Australia and the East also call at Territory ports, and there are monthly services from continental and United Kingdom ports. Coastal and inter-island shipping services are maintained by vessels operating from the two principal ports of Port Moresby and Samarai.

Other forms of transport and communication

Scheduled flights provide a network of air transport throughout Papua, and regular air services link the Territory with Australia and neighbouring Territories. There were 102 aerodromes and seaplane alighting areas in Papua at 30 June 1965, and of these eleven were the responsibility of the Department of Civil Aviation, forty-seven were operated and maintained by the Administration, and forty-four were owned and maintained by Missions, plantation and mining interests. Much of the internal traffic and freight is carried on a charter basis.

At 30 June 1965 there were 2,257 miles of road in Papua, of which 1,229 miles were suitable for medium and heavy traffic, the greater proportion being located in the Central, Milne Bay and Northern Districts.

Telephone services operate in the main centres. The radio station at Port Moresby for both transmission and reception is shared by the Overseas Telecommunications Commission and the Administration. The former provides all external telephone and radio-telephone circuits, while the latter operates radio telephone and radio telegraph services from Port Moresby, Samarai, Kerema, and Daru to 215 outstations. Medium and short-wave programmes are broadcast from the Australian Broadcasting Commission stations 9PA, VLK3, VLT4, and VLT9 located at Port Moresby.

Education and health

Education

Education in the Territory is provided by the Administration and various Mission organizations. Schools for indigenes have been also established by Local Government Councils. The *Education Ordinance* 1952-1957 enables the Administration to establish an education advisory board, district education committees and European and native schools, and to grant financial aid for educational purposes. European teachers are recruited from Australia and overseas, and indigenous teachers are trained in the Territory by the Administration and Missions. During the year ended 30 June 1965, 173 schools were maintained by the Administration for 28,139 children, of whom 1,309 were Europeans, 152 Asian or of mixed race, and 26,678 indigenes. A further 2,728 children, all indigenes, were receiving tuition by correspondence. The total number of pupils in the various grades of mission schools was 43,367, of whom there were 285 Europeans, and thirty-four of Asian or mixed race. To assist the educational work of the Missions the Administration provides expert advice, educational equipment and text-books. In addition, the sum of \$341,840 was distributed among the Missions as grants-in-aid during the year ended 30 June 1965.

Health

The Department of Public Health of the Territory of Papua and New Guinea has the general oversight of all medical and dental services. The Department has the following seven functional divisions: medical services; preventive medicine; medical training; infant, child and maternal health; medical research; administration; and mental health. The services for the Territory of Papua are under the administrative control of a regional medical officer, with headquarters staff at Port Moresby.

The cases treated in hospital are mainly malaria, tropical ulcers, pneumonia, tubercular infections and tuberculosis, bronchitis, and confinements. At 30 June 1965 the Administration had established thirty-three general hospitals, two hospitals (together with special wards in four general hospitals) for the treatment of Hansen's disease, one Hansenide-tuberculosis hospital, two tuberculosis hospitals, and one mental hospital; the Missions had established fifty general hospitals, with special wards at Eroro, Sideia and Orokolo for the treatment of Hansen's disease, and two Hansenide hospitals. There were 493 village aid posts or medical centres (135 Mission) and 147 maternal and child welfare clinics (fifty-six Mission). School medical examinations, immunization, ante-natal, and post-natal care and pre-school services are also provided. The Missions employ their own doctors and nurses in their medical establishments.

For some years suitably qualified indigenes attended the Central Medical School at Suva, Fiji, to be trained as Assistant Medical Officers. In 1959 the Administration began training to a similar standard at the Papuan Medical College which is associated with the Port Moresby General Hospital. The College, planned to accommodate 600 students eventually, is being built in stages. The course consists of a preliminary year and five years further study. Training for nurses and medical auxiliaries in many categories is also being provided.

Finance

The following table shows the principal items of revenue and expenditure for the Territory for each year from 1960-61 to 1964-65.

TERRITORY OF PAPUA: REVENUE AND EXPENDITURE, 1960-61 TO 1964-65
(*\$'000*)

	1960-61	1961-62	1962-63	1963-64	1964-65
REVENUE					
Customs	2,047	2,179	2,540	3,109	3,548
Licences	81	97	112	136	156
Stamp duties	102	87	99	81	145
Postal	561	667	803	856	1,090
Land revenue	116	108	172	152	151
Mining receipts	4	8	7	7	10
Fees and fines	20	26	29	36	56
Health revenue	66	76	89	93	92
Forestry	39	47	48	74	73
Agriculture	106	129	79	96	76
Public utilities	624	691	811	315	279
Direct taxation(a)	2,352	2,558	2,919	3,646	4,917
Miscellaneous	528	351	701	1,888	2,428
<i>Total internal revenue</i>	<i>6,645</i>	<i>7,025</i>	<i>8,409</i>	<i>10,489</i>	<i>13,023</i>
Grant by Commonwealth of Australia	11,030	14,358	15,728	20,022	22,125
Total revenue	17,675	21,383	24,137	30,511	35,148

(a) Includes Personal Tax.

TERRITORY OF PAPUA: REVENUE AND EXPENDITURE
1960-61 TO 1964-65—*continued*
(\$'000)

	1960-61	1961-62	1962-63	1963-64	1964-65
EXPENDITURE					
Expenditure from revenue—					
Special appropriations . . .	209	394	450	556	874
Departments—					
Administrator—					
Administrator . . .	243	356	386	627	380
Legislative and Executive Councils(b) . . .	19	25	31	43	97
Information and Extension Services . . .	52	60	133	175	200
Public Service Commissioner(c) . . .	176	209	186	222	246
Treasury—					
Central Treasury . . .	885	1,223	1,231	1,501	1,641
Taxation Branch . . .	35	48	44	52	60
Motor Transport Branch . . .	(d) 14	(e)	(e)	512	564
Stores and Supply Branch(f) . . .	1,693	1,645	1,688	2,712	2,761
Government Printing Office . . .	(g)	(g)	(g)	76	88
Public Health . . .	2,009	2,333	2,486	2,775	2,997
District Administration(h) . . .	980	1,038	1,044	1,231	1,547
Agriculture, Stock and Fisheries . . .	717	853	894	1,062	1,334
Education . . .	1,508	1,826	2,333	3,007	3,852
Labour . . .	15	83	82	99	140
Police . . .	539	676	690	716	893
Law—					
Law . . .	122	157	170	200	241
Corrective Institutions Branch . . .	44	80	97	116	137
Lands, Surveys and Mines . . .	276	367	430	515	645
Forests . . .	112	146	141	178	220
Posts and Telegraphs . . .	731	936	995	1,200	1,311
Trade and Industry . . .	264	312	463	542	746
Public Works—					
Public works . . .	403	377	440	575	1,300
General maintenance . . .	2,052	2,506	2,640	3,141	3,573
Capital works and services(i) . . .	4,171	4,913	6,228	7,158	7,525
Purchase of capital assets . . .	572	824	883	1,520	1,618
<i>Expenditure from revenue</i> . . .	<i>17,840</i>	<i>21,386</i>	<i>24,163</i>	<i>30,511</i>	<i>34,988</i>
Expenditure chargeable to Loan Funds . . .	383	413	754	1,277	2,407
Total expenditure . . .	18,223	21,798	24,917	31,787	37,395

(a) Includes Personal Tax. (b) Includes the Administrator's Council which replaced the Executive Council during 1960-61 and the House of Assembly which replaced the Legislative Council during 1963-64. (c) Includes expenditure of the Administrative College. (d) Transport costs with the exception of bus operational costs have been transferred to consuming departments. (e) Transport costs have been transferred to consuming departments. (f) Includes costs of general stores for all departments except Public Works. (g) Printing costs transferred to consuming departments. (h) Before 1964-65, Department of Native Affairs. (i) Additional expenditure on this item included under 'Expenditure chargeable to Loan Fund'.

TRUST TERRITORY OF NEW GUINEA

General description

Area, etc.

The land area of the Territory of New Guinea is 92,160 square miles, and the area, including the sea, within the lines drawn through its extreme outer points is more than one million square miles. As the coastlines have not been completely surveyed, the areas of the various islands are known only approximately. The approximate area of the New Guinea mainland is 69,095 square miles and that of adjacent islands, including the Solomon Islands and the Bismarck Archipelago, is 23,065 square miles. Information regarding physiography and climate will be found in Year Book No. 22, page 613, and in the *Official Handbook of the Territory of New Guinea*.

Administration

The terms of the League of Nations mandate (1920) of the former German possession of New Guinea are given in Year Book No. 33 (see page 264). Particulars of the administration of the Territory of New Guinea prior to the setting-up of the Papua and New Guinea Administration are given in Year Book No. 36 and earlier issues, and of events following the outbreak of the Pacific War in Year Book No. 37 and subsequent issues up to No. 48.

Following the 1939-45 War the Commonwealth Government undertook to place the Territory of New Guinea under the Trusteeship System established under the Charter of the United Nations. The Trusteeship Agreement for the Territory, under which the Government of Australia is the sole administering authority, was approved by the General Assembly of the United Nations Organization on 13 December 1946. The terms of the Agreement are shown in Year Book No. 39, pages 355-7.

For administrative purposes the Territory is divided into the following twelve districts: East New Britain and West New Britain, comprising New Britain and the adjacent islands; Morobe, Madang, Eastern Highlands, Chimbu, Western Highlands, East Sepik, and West Sepik on the mainland; New Ireland, comprising New Ireland, Lavongai and adjacent islands; Manus, comprising the Admiralty Group; and Bougainville in the Solomon Islands. Each district is administered by a District Commissioner.

Population

Non-indigenous population

At the Census of 30 June 1961 the non-indigenous population of the Territory was 9,158 males, 6,378 females, 15,536 persons. The total non-indigenous population at the Censuses of 1921, 1933, 1947, and 1954 was, respectively, 3,173, 5,216, 6,200, and 11,442 persons. At the 1961 Census the European population numbered 11,702 persons. At 30 June 1965 the total non-indigenous population was estimated to be 17,446.

Indigenous population

The indigenous people of the Territory may in general be grouped with the Melanesians who occupy the greater part of the Western Pacific. They may be divided into two main types—Melanesian and Papuan—the former, with a few exceptions, constituting the population of the Bismarck Archipelago, the Solomon Islands and the coastal districts of the New Guinea mainland, the latter inhabiting the interior of the mainland. Some tribes of Negritos exist in the mountains of New Guinea. There is a strain of Papuan, and, possibly, of Polynesian blood in the Admiralty Islanders, while the Western Islanders and the inhabitants of the small islands east and south-east of New Ireland are Micronesians. (See Year Book No. 16, page 670, and *Official Handbook of the Territory of New Guinea*, Part V.)

The enumerated and estimated indigenous population of the Territory as at 30 June 1965 numbered 1,558,520 persons, comprising enumerated, 1,547,210 (811,952 males and 735,258 females), and estimated, 11,310. The total population was distributed throughout the several districts as follows: Eastern Highlands, 372,713 persons; Western Highlands, 295,509; Sepik, 266,696; Madang, 153,169; Morobe, 215,979; New Britain, 125,949; New Ireland, 42,349; Bougainville, 66,942; Manus, 19,214.

Land tenure

The principles governing the acquisition and ownership of land and types of tenure available in New Guinea are in general similar to those which obtain in Papua, and grants of estates are restricted to leasehold tenure. In New Guinea, however, the amount of freehold land of earlier

origin held by private non-indigenous owners amounts to more than half a million acres. Freehold titles to this land, which includes a good deal of plantation land, may be transferred by purchase, subject only to the general provision that dealings in land require the approval of the Administrator.

The area of the Territory of New Guinea is estimated at 59,000,000 acres, of which at 30 June 1965 only 1,525,113 acres were alienated. The following was the distribution of alienated land according to tenure at 30 June 1965: held by private non-indigenous inhabitants—freehold, 536,711 acres, leasehold, 393,604 acres; native reserves, 27,150 acres; other Administration land, including land reserved for public purposes, 567,648, acres.

Under German law there was a system of registration of titles in a Ground Book, but registration did not confer an indefeasible title. The German system has been replaced by one modelled on the Torrens plan, embodied in the *Lands Registration Ordinance* 1924–1962. The land registers were lost during the 1939–1945 War, but provision for restoration of the lost titles is made in the *New Guinea Land Titles Restoration Ordinance* 1951–1965.

Production

The products of the Territory are obtained principally from its agricultural, mining, fishing, and forestry industries. A copra crushing mill near Rabaul, established in 1952, commenced crushing at about 18,000 tons of copra per annum, and its capacity is now about 60,000 tons of copra per annum. At Bulolo a company is producing high quality moisture-proof plywood in a factory whose capacity is 40 million square feet, on a $\frac{3}{16}$ -in. basis, per annum. Native subsistence agriculture, fishing and hunting produce most of the food requirements of the indigenous population. The main native agricultural products are taro, yams, sweet potatoes, coconuts, bananas, and papaws. Non-indigenous enterprise produces most of the commodities exported. Indigenes, however, produce copra for export, and in recent years have taken up the production of introduced crops such as peanuts, rice, cucurbits, and maize for their own consumption and cocoa, coffee and pyrethrum for export. The principal agricultural products of New Guinea for the export trade are copra and coconut oil, cocoa, and coffee, but exports of timber and timber products are at a high level (*see below*). The main products of fisheries exported from New Guinea are trochus and green snail shell, including that collected by indigenes. Gold is the principal mineral mined. Indigenes are taking an increasing interest in mining for alluvial gold on their own account, and production from this source is continually rising, in contrast to falling European production.

For information on the agricultural and animal industries, which for the sake of convenience covers the Territories of Papua and New Guinea singly and combined, *see* pages 1101–10. The following paragraphs relate to the timber, fishing and mining industries in the Territory of New Guinea alone.

Timber

Various species of timber are found in the Territory, and one accessible pure stand is the valuable pine forests of the Bulolo Valley. This timber is used mainly for the production of plywood and veneer by Commonwealth-New Guinea Timbers Ltd., which has an annual cut of about 10 million super. feet of logs. About 23.3 million square feet of plywood, on a $\frac{3}{16}$ -in. basis, were produced by the company in 1964–65 from these logs and from veneer produced by South Pacific Timbers Limited at Lae. In 1964–65, 21.7 million square feet of plywood, valued at \$2,021,000, and 4.4 million square feet of veneer, on a $\frac{1}{16}$ -in. basis, valued at \$73,112, were exported. During the year 14.5 million super. feet of logs, valued at \$592,558, and 5.2 million super. feet of sawn timber, valued at \$823,604, were also exported from the Territory. The Territory forests also provided fitches, battery veneer and egg-case parts for export. The Administration operates a training centre for forestry workers, nurseries and a herbarium, and is establishing a research institute in Port Moresby.

The *Forestry Ordinance* 1936–1951 provides for the issue of permits and licences to cut timber. Present policy calls for the orderly development of the timber industry on sound forestry principles to ensure no waste of the resources and no over-exploitation; the grant of emergency timber permits for limited quantities to assist in providing timber for Territory requirements; the disposal by public tender of timber areas designated by forest officials of the Territory; and the development of the pine stand in the Bulolo Valley by Commonwealth-New Guinea Timbers Ltd. In addition, three large timber stands containing over 5,000 million super. feet of logs are being opened up and will be the subject of direct negotiation with major sawmill operators. Timber growing on native lands cannot be acquired by private purchasers direct from the native people, but must be obtained through the Administration. Royalty is payable on all forest produce taken under permit or licence. Reforestation of areas dedicated for forestry in perpetuity is carried out by the Administration. At 30 June 1965 forty-six permits and thirteen licences were current, the total area of forest involved being 506,194 acres and 23,949 acres respectively.

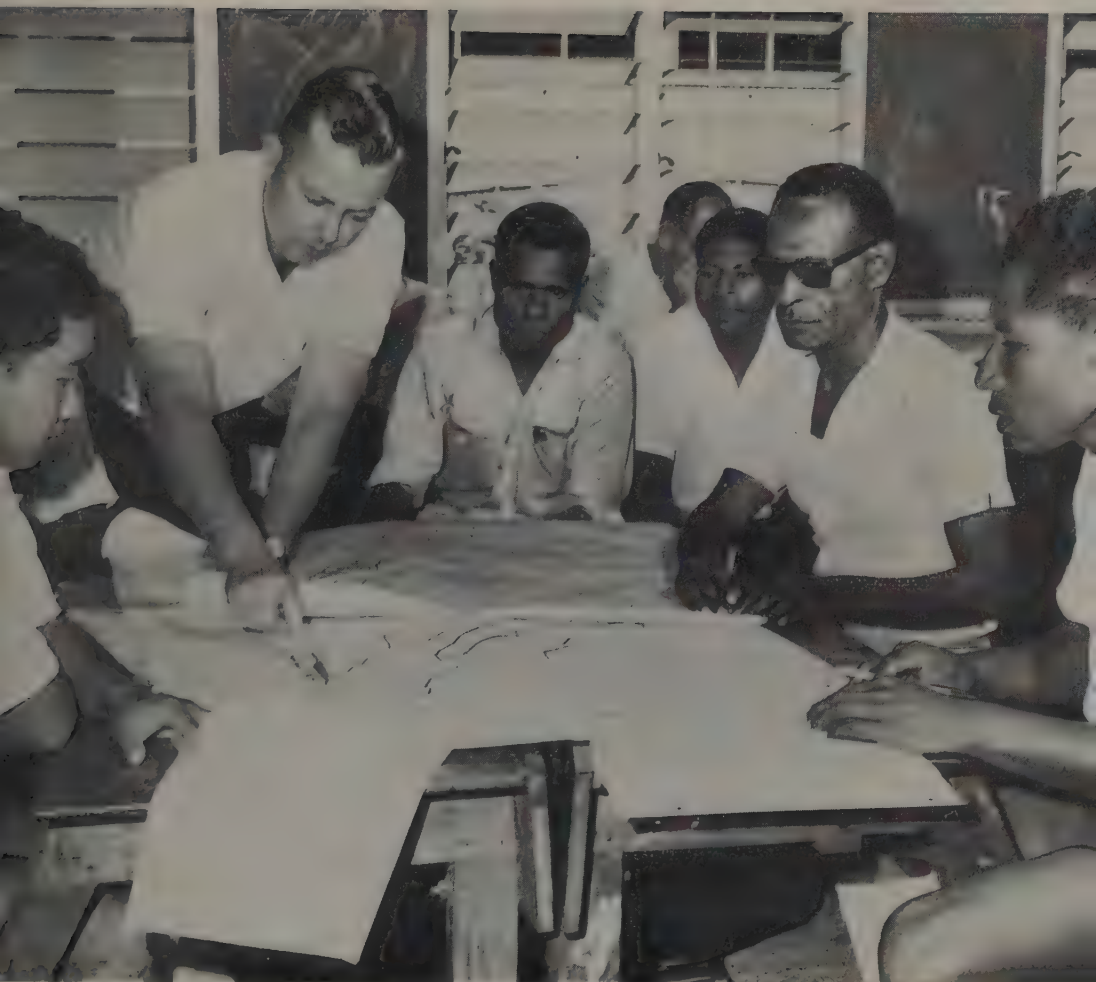


PLATE 63

Course for Census interviewers, Papua and New Guinea Census, 1966

Photographs for Plates 63 and 64 by courtesy of Administration of Papua and New Guinea

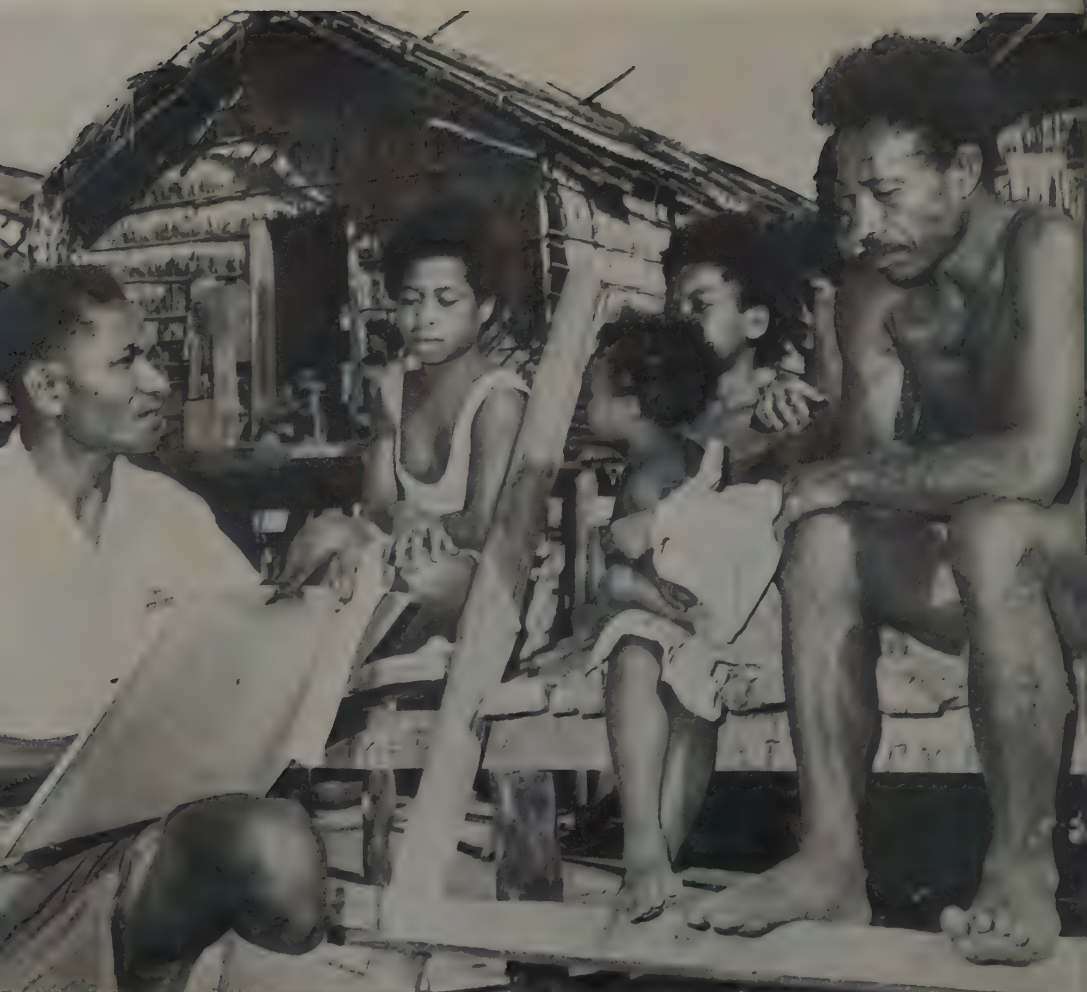


PLATE 64

Interviewing a family, Papua and New Guinea Census, 1966

Fisheries

The wealth of the waters of the Territory has been little exploited, but as the result of surveys and the development of the Administration fisheries service, action is being taken to promote increased use of the resources. Fish are caught at many places along the coast to supply the small local demand of the natives and of Europeans. Trochus shell to the value of \$40,512 and green snail shell to the value of \$4,262 were exported during 1964-65.

Mining

The production of gold and associated silver is the most important mining activity in New Guinea, although other minerals, such as osmiridium, platinum, copper, iron ore, sulphur, and brown coal, have been discovered. The production of gold in New Guinea since the 1939-45 War has been on a much smaller scale than before the war, averaging only about \$1,278,000 in value per annum for the last five years. The 1964-65 production was valued at \$1,053,244. The discovery of extensive low-grade copper deposits on Bougainville has given impetus to the industry in the Territory.

The granting of rights, leases, and claims for mining purposes is provided for in the *Mining Ordinance* 1928-1962 and regulations thereunder. The *Petroleum (Prospecting and Mining) Ordinance* 1951-1963 has facilitated the carrying out of geological surveys and prospecting activities generally. There are two prospecting permits for oil current at the present time.

Trade, transport and communication

Value of imports and exports

TERRITORY OF NEW GUINEA: IMPORTS AND EXPORTS 1960-61 TO 1964-65 (\$'000)

	1960-61	1961-62	1962-63	1963-64	1964-65p
<i>Total imports(a)</i>	33,606	32,157	35,652	43,119	54,113
Exports—					
Domestic exports	23,577	23,864	27,689	31,342	37,237
Re-exports	1,857	1,698	1,921	2,372	2,858
<i>Total exports</i>	25,434	25,563	29,610	33,714	40,095

(a) Includes outside packages.

Countries of origin or destination

TERRITORY OF NEW GUINEA: COUNTRY OF ORIGIN OF IMPORTS(a) 1960-61 TO 1964-65 (\$'000)

Country of origin	1960-61	1961-62	1962-63	1963-64	1964-65p
Australia	19,483	17,422	19,448	24,029	29,355
Germany (Federal Republic)	1,023	1,231	1,290	1,433	1,909
Hong Kong	2,100	2,107	1,991	2,625	2,657
India	514	294	293	303	250
Indonesia	1,576	1,299	1,646	427	184
Japan	2,494	2,813	2,620	3,749	5,427
United Kingdom	2,902	2,383	2,728	2,752	4,404
United States of America	1,930	2,284	2,455	2,782	3,436
Other countries	1,583	2,324	3,181	5,019	6,491
<i>Total</i>	33,606	32,157	35,652	43,119	54,113

(a) Includes outside packages.

TERRITORY OF NEW GUINEA: COUNTRY OF DESTINATION OF EXPORTS
1960-61 TO 1964-65
 (\$'000)

Country of destination	1960-61	1961-62	1962-63	1963-64	1964-65 p
Australia	10,990	11,089	12,054	14,936	16,758
United Kingdom	10,026	9,188	10,532	10,976	13,849
Other countries	4,418	5,285	7,025	7,802	9,488
Total	25,434	25,563	29,610	33,714	40,095

Principal commodities exported

TERRITORY OF NEW GUINEA: PRINCIPAL DOMESTIC EXPORTS
1960-61 TO 1964-65
 (\$'000)

Commodity	1960-61	1961-62	1962-63	1963-64	1964-65 p
Copra	8,161	7,330	7,352	8,050	9,604
Other coconut products	5,290	4,477	5,326	5,189	7,425
Cocoa beans	3,272	3,921	5,863	6,743	6,977
Coffee beans'	2,188	3,093	4,024	5,326	7,276
Peanuts	557	608	592	573	461
Gold	1,360	1,435	1,334	1,320	1,076
Shell (marine)	69	57	38	77	47
Timber	521	458	1,115	1,329	1,416
Plywood	1,731	1,870	1,390	1,948	2,021
Veneer	76	63	72	68	73
Other	351	553	583	719	861
Total	23,577	23,864	27,689	31,342	37,237

Shipping

Regular passenger and freight services operate between Australia, Papua and the Territory of New Guinea. Vessels trading between the East and Australia and the Pacific Islands call at Territory ports, and there are monthly services from continental and United Kingdom ports. Coastal and inter-island shipping services are maintained by vessels operating from the principal ports of the Territory. Shipping within the Territory is regulated by the *Shipping Ordinance 1951-1960* and the Coastal Shipping, Ports and Harbours Regulations. Main ports of call for oversea vessels are Lae, Madang, Wewak (mainland), Rabaul (New Britain), and Kavieng (New Ireland). In 1964-65, 303 British vessels and 109 vessels of other nationalities called at Territory ports and discharged 300,874 tons of cargo and loaded 180,961 tons. Corresponding figures for 1963-64 were 289,106, 226,594, and 171,729 respectively. There are no inland waterways, and the natural river system is not generally suitable for vessels except those of small tonnage.

Other forms of transport and communication

There are no railways in New Guinea, but a road construction programme is being undertaken progressively to assist the economic development of the Territory. Road transport services operate in the main towns and on the trunk roads linking Rabaul and Kokopo; Lae, Bulolo and Wau; Kavieng and Namatanai; and on the network in the Eastern and Western Highland Districts centred on Goroka and Mount Hagen. The total mileage of roads in the Territory of New Guinea at 30 June 1965 was 5,747, of which 3,639 were suitable for heavy and medium traffic.

Scheduled flights provide a network of air transport throughout New Guinea, and regular air services link the Territory with Australia and neighbouring territories. There were 214 aerodromes and seaplane alighting areas in New Guinea at 30 June 1965, and of these 11 were controlled by the Department of Civil Aviation, 72 by the Administration, and 131 by private interests.

Telephone services operate in the main centres. Radio telephone trunk circuits link Port Moresby with Lae, Rabaul and Madang, and service is available from subscribers' telephones in Port Moresby, Lae and Rabaul, and from the post office at Madang. Nine zone or group centres

for radio telegraph communication with out-stations have been established at Lae, Rabaul, Kavieng, Lorengau, Madang, Mount Hagen, Wewak, Sohano, and Goroka. From these centres radio telegraph services are also available to 577 out-stations. Medium wave broadcasting programmes are transmitted by the Australian Broadcasting Commission station 9RB Rabaul.

Education and health

Education

Education in the Territory is provided by the Administration and various Mission organizations. Schools for indigenes have also been established by Local Government Councils. The *Education Ordinance* 1952-1957 enables the Administrator to establish an education advisory board, district education committees and schools for all sections of the community, and to grant financial aid for educational purposes. Expatriate teachers are recruited from Australia and overseas, and indigenous teachers are trained in the Territory by the Administration and the Missions. During the year ended 30 June 1965, 326 schools were maintained by the Administration for 43,302 children, of whom 1,503 were Europeans, 386 Asians, 284 mixed race, and 41,129 indigenes. In addition, 2,906 indigenes were studying by correspondence. The total number of pupils in the various grades of mission schools was 131,866, of whom 167 were Europeans, 135 Asians and 230 of mixed race. To assist the educational work of the Missions the Administration provides expert advice, educational equipment and text-books. In addition, the sum of \$932,874 was distributed among the Missions as grants-in-aid during the year ended 30 June 1965.

Health

The cases treated in hospital are mainly malaria, pneumonia, tropical ulcers, bronchitis, tubercular infections and tuberculosis, skin infections, and confinements. At 30 June 1965 there were 69 Administration hospitals, including three Hansenide colonies, two tuberculosis hospitals, and one Hansenide and tuberculosis hospital. The Missions have established an additional 73 hospitals, including two Hansenide colonies and one Hansenide and tuberculosis hospital. There are 1,212 village aid posts or medical centres (131 conducted by Missions) and 619 maternity and child welfare centres (115 provided by Missions). The Missions staff their own medical establishments but receive financial assistance from the Administration, which also provides much of their medical stores and supplies.

Finance

The principal items of revenue and expenditure for the Territory of New Guinea during the years 1960-61 to 1964-65 are shown in the following table.

TRUST TERRITORY OF NEW GUINEA: REVENUE AND EXPENDITURE
1960-61 TO 1964-65
(\$'000)

	1960-61	1961-62	1962-63	1963-64	1964-65
REVENUE					
Customs	3,199	3,562	3,974	4,412	5,332
Licences	151	171	191	231	275
Stamp duties	71	159	141	114	99
Postal	431	495	514	705	963
Land revenue	147	126	133	195	205
Mining receipts	29	26	25	25	26
Fees and fines	44	46	42	55	74
Health revenue	87	104	123	128	141
Forestry	463	396	318	315	389
Agriculture	102	232	213	299	338
Direct taxation(a)	2,637	2,088	2,428	2,971	3,876
Public utilities	597	655	765	207	153
Miscellaneous	299	327	773	2,608	3,034
<i>Total internal revenue</i>	<i>8,259</i>	<i>8,387</i>	<i>9,640</i>	<i>12,265</i>	<i>14,906</i>
Grant by Commonwealth of Australia	18,563	20,229	24,272	30,477	33,873
Total revenue	26,822	28,616	33,912	42,741	48,780

(a) Includes Personal Tax.

TRUST TERRITORY OF NEW GUINEA: REVENUE AND EXPENDITURE
1960-61 TO 1964-65—continued
(\$'000)

	1960-61	1961-62	1962-63	1963-64	1964-65
EXPENDITURE					
Expenditure from revenue—					
Special appropriations . . .	326	536	763	923	1,420
Departments—					
Administrator—					
Administrator	483	471	527	942	606
Legislative and Executive					
Councils(b)	30	34	52	71	157
Information and Extension					
Services	70	95	213	285	332
Public Service Commissioner .	275	284	315	369	400
Treasury—					
Central Treasury	1,602	1,796	1,835	2,124	2,297
Taxation Branch	54	65	74	87	97
Motor Transport Branch . . .	(c)	(c)	(c)	1,147	1,304
Stores and Supply Branch(d)	2,589	2,335	2,842	4,502	4,516
Government Printing Office .	(e)	(e)	(e)	126	142
Public Health	3,289	3,688	4,319	4,702	5,079
District, Administration(f) . .	1,742	1,897	1,897	2,108	2,511
Department of Agriculture,					
Stock and Fisheries	1,255	1,362	1,556	1,916	2,372
Education	2,572	3,120	3,938	4,911	5,945
Labour	53	172	210	235	286
Police	919	1,071	1,239	1,253	1,454
Law—					
Law	250	273	358	417	472
Corrective Institutions					
Branch	56	82	131	185	221
Lands, Surveys and Mines . .	473	596	690	869	967
Forests	621	610	640	674	773
Posts and Telegraphs	1,033	1,127	1,327	1,537	1,782
Trade and Industry	337	359	553	674	785
Public Works	631	513	746	954	2,248
General maintenance	2,638	3,103	3,629	3,727	4,428
Capital works and services(g) .	4,722	4,050	4,689	5,919	6,107
Purchase of capital assets . .	803	977	1,370	2,085	2,077
Expenditure from revenue . .	26,822	28,616	33,912	42,741	48,780
Expenditure chargeable to Loan					
Fund—					
Capital works and services . .	721	581	1,043	2,119	3,911
Total expenditure	27,543	29,197	34,955	44,861	52,691

(a) Includes Personal Tax. (b) Includes the Administrator's Council, which replaced the Executive Council during 1960-61, and the House of Assembly, which replaced the Legislative Council during 1963-64. (c) Transport costs transferred to consuming departments. (d) Includes costs of general stores for all departments except Public Works. (e) Printing costs transferred to consuming departments. (f) Before 1964-65, Department of Native Affairs. (g) Additional expenditure on this item included under Expenditure chargeable to Loan Fund.

TRUST TERRITORY OF NAURU

General description

Nauru is an oval-shaped atoll about twelve miles in circumference, having an area of about 8½ square miles, of which approximately two-thirds is phosphate-bearing. It is situated in latitude 0° 32' S. and longitude 166° 55' E. Portion of the island between the sandy beach and the coral cliffs is comparatively fertile, and it is there that most of the Nauruans reside. With the exception of a small fringe around an inland lagoon, the plateau which contains the phosphate

deposits possesses few food plants and is uninhabited, but portion of the area has been planted with fruit trees. The system of land tenure is governed by an old custom, and, with the exception of small allotments held by the Government, the British phosphate Commissioners and the Missions, the whole of the island is owned by individual Nauruans. The temperature range is from 76° F. at night to 94° F. during the day, and the average humidity is about 80 per cent. Normally the rainfall is comparatively low for islands of the Pacific, the annual average for the twenty years from 1920 to 1940 being 80.5 inches. However, falls as high as 181.76 inches during 1940 and as low as 12.29 inches during 1950 have been recorded.

Administration

The island, discovered by Captain Fearn in 1798, was annexed by Germany in 1888, and prior to 1914 was part of the protectorate of German New Guinea. Following the 1914-18 War a League of Nations mandate for its administration was conferred upon His Britannic Majesty, and on 2 July 1919 the British, Australian and New Zealand Governments agreed that the administration should be vested in an Administrator. Following the 1939-45 War, the General Assembly of the United Nations approved a Trusteeship Agreement for the Territory of Nauru submitted by the Governments of Australia, New Zealand, and the United Kingdom in substitution for the terms of the mandate under which the Territory had been administered. This Agreement designates the Governments of Australia, New Zealand, and the United Kingdom as the Joint Administering Authority, with the Government of Australia continuing, on behalf of the Administering Authority, to exercise full powers of legislation, administration and jurisdiction in and over the Territory. The terms of the Agreement were given in Year Book No. 39, pages 370-1.

Until 31 January 1966 power to make laws for the Island was vested in the Administrator. On that date a Legislative Council was established, consisting of the Administrator, nine elected Nauruan members and five official members. The Legislative Council is empowered to make Ordinances for the peace, order and good government of the Territory, except in respect of the phosphate industry as such, defence and external affairs. Legislative powers in respect of these subjects are vested in the Governor-General. At the same time an Executive Council was established with power to advise the Administrator. The Executive Council consists of the Administrator, two elected members of the Legislative Council and two official members of that Council. The Nauru Local Government Council, established in 1951 to advise the Administrator on matters affecting the Nauruan community, to carry out works and supply certain services for that community and to direct the Nauru Co-operative Society, also continues to function for the time being. All administration expenses are met from local revenue and phosphate royalties.

Population

The Nauruan component of the population numbered about 1,100 in 1921, but had grown to more than 1,800 before the Japanese invasion in August 1942. In 1946 it numbered less than 1,400, but by 30 June 1965 had risen to 2,734. Chinese have, for many years, formed a considerable part of the population of Nauru, but their numbers are not as great as formerly; at 30 June 1965 they amounted to 900. The number of other Pacific Islanders in the early 1920's was almost 300, but they subsequently decreased, then rose again, and at 30 June 1965 there were 1,481. The European population after 1921 fluctuated, with a generally upward trend, between one and two hundred, and in recent years has gradually increased, reaching 446 at 30 June 1965. The total population of Nauru at the Census of 30 June 1961 was 3,019 males, 1,594 females, 4,613 persons. At 30 June 1965 the total population of Nauru was 5,561, comprising 2,734 Nauruans, 1,481 other Pacific Islanders, 900 Chinese, and 446 Europeans.

Future of Nauruans

Resettlement. During recent years investigations have been made to find a suitable home for the Nauruan people after the exhaustion of the phosphate deposits towards the end of this century. After inspection of several islands, Curtis Island off the Queensland coast was agreed upon as a suitable location for resettlement purposes. Discussions took place in 1963 between the Director of Nauruan Resettlement and the Nauru Local Government Council and in 1964 between representatives of the Australian Government and a Nauruan delegation concerning proposals for resettlement of the Nauruan people. At the latter discussions the Nauruan delegation made it clear that, although Curtis Island was regarded as a place which would be suitable for Nauruan resettlement, the powers reserved to Australia in that event should be only those which relate to defence, quarantine and possibly external affairs and civil aviation. The Australian representatives informed the Nauruan delegation that the Commonwealth Government could not accept the proposal that the Nauruan people be established on Curtis Island on such terms, but gave further expression to the sympathy of the Australian Government with the desire of the Nauruan people to retain their identity as a distinct community and said that the Government was prepared to see what else could be done to achieve this end.

The Nauruan delegation informed the Australian representatives that the Nauru Local Government Council considered that there were no prospects of an agreement on the proposal for resettlement at Curtis Island because of the differences in the Australian and Nauruan views on the political aspects of the proposal, and they considered, therefore, that there should be no further discussion of resettlement on Curtis Island. The Council nevertheless expressed its willingness, if the Australian Government thought further talks would achieve a useful end, to take part in them. The delegates from the Nauru Local Government Council then informed the Australian Government representatives that the people of Nauru would elect to remain on Nauru.

Arrangements for two Nauruan observers to attend a meeting of the United Nations Trusteeship Council, projected for late in 1964 or early in 1965, at which it was expected that the future of Nauru would be discussed, lapsed when the meeting did not eventuate. The Nauruan views on their future were fully presented by the Australian Special Representative to the Trusteeship Council in 1965.

At a later series of discussions held in May and June 1965 the Australian Government agreed with representatives of the Nauru Local Government Council to pursue any proposals that might give promise of enabling the Nauruan people to resettle on a basis acceptable to them and one which would preserve their national identity.

Reclamation of worked-out lands. At the conference in July and August 1964 the Nauruan delegation raised the question of the possibility of reclaiming the worked-out phosphate land and suggested that if this land were covered with soil, it would be possible to use it for agriculture. The Australian representatives drew attention to the report made by the Commonwealth Scientific and Industrial Research Organization some years ago which said that there seemed to be little hope of widespread utilization in the future of the worked-out lands. The question was further discussed during the second series of talks in May and June 1965 between Australian Government representatives and a delegation from the Nauru Local Government Council, particularly in connection with the decision of the Nauruans to pursue their future on the Island of Nauru. It was agreed to establish at the earliest practicable date an independent technical committee of experts to examine what would be involved in, and the practicability of the rehabilitation of, the worked-out phosphate lands.

Phosphate deposits

From 1906 to 1919 the deposits were worked by the Pacific Phosphate Company, which also worked the deposits on Ocean Island (about 165 miles east of Nauru and part of the Gilbert and Ellice Islands Colony administered by the Colonial Office). The quantity of phosphate remaining on Nauru has been estimated at about 64 million wet tons.

The interests of the Pacific Phosphate Company in the two islands (though not in other islands in the Pacific in which it had workings) were bought by the British, Australian and New Zealand Governments on 25 June 1920 for £Stg3,500,000, the purchase money being contributed in the proportions of 42, 42 and 16 per cent respectively. The Agreement of 2 July 1919 provides for the working of the deposits by three British Phosphate Commissioners, one appointed by each Government, and the three countries are entitled to receive the output in the same proportions of 42, 42 and 16 per cent. In practice Britain has never taken its full entitlement of phosphate from Nauru. Consequently the bulk of the exports are to Australia and New Zealand.

Exports of phosphate from Nauru in 1964-65 amounted to 1,692,950 tons, valued at \$9,565,168, 58 per cent to Australia, 30 per cent to New Zealand and 12 per cent to the United Kingdom. During the five years ended 30 June 1965, 7,837,013 tons of phosphate were exported.

Apart from a limited number of Europeans the employees of the Commissioners are Chinese and Pacific Islanders engaged under one year contracts. Increasing numbers of Nauruans are being employed, mainly in trade capacities.

Royalties on phosphate

Dating from the establishment of the British Phosphate Commissioners in 1919 royalties have been payable for each ton of phosphate exported in amounts agreed upon between the Commissioners and the Nauru Local Government Council from time to time. Since 1 July 1962 the rate of royalties has totalled 37c per ton made up as follows: 19c to the respective landowners comprising an immediate cash payment of 12c, and 7c invested on their behalf for 15 years; 8c to the Nauru Royalty Trust Fund paid in cash to the Nauru Local Government Council and used for the Nauruan community; and 10c paid to a long term investment fund for the benefit of the Nauruans on the exhaustion of the phosphate deposits.

In addition, payments are made, currently at \$240 per acre, for land leased for phosphate mining or for sites for permanent installations on phosphate land. At discussions held with the Nauruans in May and June 1965 it was agreed to increase the royalty rates to \$1.35 a ton for 1964-65 and to \$1.75 a ton for 1965-66. Further discussions are in progress with the Nauruans in 1966 to consider the future operations of the phosphate industry at Nauru.

Trade, transport and communication

The Customs Tariff of Nauru provides for the free admission of all goods other than cigars, cigarettes, tobacco, spirits, wines, beer, cider, and perry. Articles imported by the Administration for its own use and spirits for scientific purposes are exempt. The tariff rates apply to all countries alike. In 1964-65 imports were valued at \$4,595,798 and exports, 1,692,950 tons of phosphate, at \$9,565,168. Of the total imports in 1964-65, Australia supplied 81 per cent valued at \$3,721,006; the balance came mainly from Hong Kong, New Zealand and the United Kingdom. In 1964-65, 982,400 tons of phosphate were exported to Australia, 505,550 tons to New Zealand and 205,050 tons to the United Kingdom.

There is no regular air service to Nauru, but when the need arises charter flights are made to the island. There is relatively frequent communication by sea with the island. Most of the vessels are run or chartered by the British Phosphate Commissioners for the carriage of phosphate. Many of them also provide for the carriage of passengers and other cargo as required. The total calls by vessels were 169 in 1964-65.

Education

The Administration assumed full responsibility for education on 1 October 1923. Prior to that date the education of Nauruan children was undertaken by the Missions, which were subsidized by the Administration. There are four infant schools, three primary schools, one Nauruan secondary school, and two mission schools. At 30 June 1965, 807 Nauruans, 265 other Pacific Islanders, seventy-six Chinese, and seventy-one Europeans were enrolled in the infant and primary schools, and 269 at the two secondary schools.

The curriculum is based generally on that used in Victorian schools, and the teaching is generally in English. Education is compulsory for Nauruan children from six to seventeen years of age. At 30 June 1965 eighty-one Nauruans were studying in Australia. Of these, fifty-six held Administration scholarships, twelve were Administration cadets, two were Administration sponsored apprentices, and eleven were privately sponsored. In addition to these, there was one student at the Central Medical School, Suva, and two apprentices and one tradesman in Australia.

Health

Cases of the usual diseases known in the Pacific occur, but the health of all sections of the population is generally satisfactory. An area has been set apart for the segregation of sufferers from Hansen's disease, and the latest methods of treatment are applied. The total number of persons receiving treatment at 30 June 1965 was forty-three, of whom, however, only three were in segregation at the Hansenide colony. Three hospitals are maintained on the island, one by the Administration for Nauruans and two by the British Phosphate Commissioners. The Administration also conducts eleven maternity and child health centres. A regular anti-mosquito campaign is conducted. Steps have been taken by the authorities to improve the water supply and to provide efficient sanitation generally. Every Nauruan is required to undergo medical examination at intervals of three months.

Judiciary

By virtue of the *Nauru Act* 1965 there is a Central Court which is a superior court of record consisting of a judge appointed by the Governor-General and such magistrates as are appointed by the Administrator. A Court of Appeal, comprising a judge or judges appointed by the Governor-General, has also been constituted under the Act. The District Court established by the *Judiciary Ordinance* 1957-1965 of the Territory is continued in existence by the same Act.

Revenue and expenditure

The revenue of the Administration for the year 1964-65 amounted to \$1,300,888 and expenditure to \$1,540,190. Of the revenue, payments by the British Phosphate Commissioners amounted to \$1,215,188, post office and radio receipts, \$51,544, and import duties, \$8,282. Expenditure comprised salaries, \$640,516, general expenses, \$327,880, miscellaneous services, \$370,470, and capital works and services, \$201,324.

HEARD ISLAND AND McDONALD ISLANDS

These islands, about 2,500 miles south-west of Fremantle, were transferred from the United Kingdom to Australia as from 26 December 1947. The laws of the Australian Capital Territory were declared to be in force in the Territory of Heard Island and McDonald Islands by the *Heard and McDonald Islands Act* 1953.

In December 1947 an Australian scientific station was established on Heard Island, and meteorological investigations were conducted until the station was closed in March 1955 following the establishment of Mawson station on the Antarctic mainland. Australian expeditions have since visited the island from time to time. Heard Island is about twenty-seven miles long and thirteen miles wide. The McDonald Islands are twenty-six miles to the west of Heard Island. They are small, rocky and precipitous.

AUSTRALIAN ANTARCTIC TERRITORY

An Imperial Order in Council of 7 February 1933 placed under Australian authority all the islands and territories other than Adelie Land situated south of 60° S. latitude and lying between 160° E. longitude and 45° E. longitude. The Order came into force with a Proclamation issued by the Governor-General on 24 August 1936 after the passage of the *Australian Antarctic Territory Acceptance Act* 1933. The boundaries of Adelie Land were definitively fixed by a French Decree of 1 April 1938 as the islands and territories south of 60° S. latitude lying between 136° E. longitude and 142° E. longitude. The *Australian Antarctic Territory Act* 1954 declared that the laws in force in the Australian Capital Territory are, so far as they are applicable and are not inconsistent with any ordinance made under the Act, in force in the Australian Antarctic Territory.

On 13 February 1954 the Australian National Antarctic Research Expeditions (A.N.A.R.E.) established a base on MacRobertson Land at latitude 67° 36' S. and longitude 62° 53' E. The base was named Mawson in honour of the late Sir Douglas Mawson and was the first permanent Australian station to be set up on the Antarctic continent. Meteorological and other scientific research is conducted at Mawson, which is the centre for coastal and inland survey expeditions.

A second Australian scientific research station was established on the coast of Princess Elizabeth Land on 13 January 1957 at latitude 68° 34' 36" S. and longitude 77° 58' 36" E. The station was named Davis in honour of Captain John King Davis of Melbourne, who commanded a number of famous Antarctic ships. The station was temporarily closed down in January 1965. In February 1959 the Australian Government accepted from the United States Government custody of Wilkes Station, which was established by the United States on 16 January 1957 on Vincennes Bay, at latitude 66° 15' S. and longitude 110° 33' E. The station was named in honour of Lieut. Charles Wilkes, who commanded the 1838-40 United States expedition to the area. A new station of advanced design is being constructed close to Wilkes which it will eventually replace. A.N.A.R.E. have also operated a station, since the 1947-48 Antarctic season, at Macquarie Island, approximately 850 miles south-east of Hobart. Macquarie Island is a dependency of the State of Tasmania.

On 1 December 1959 Australia signed the Antarctic Treaty with Argentina, Belgium, Chile, France, Japan, New Zealand, Norway, South Africa, the U.S.S.R., the United Kingdom, and the United States of America. Poland, Czechoslovakia and Denmark have subsequently acceded to the Treaty. The Treaty reserves the Antarctic area south of 60° S. latitude for peaceful purposes, provides for international co-operation in scientific investigation and research, and preserves, for the duration of the Treaty, the *status quo* with regard to territorial sovereignty, rights and claims. The Treaty entered into force on 23 June 1961. Since then the Antarctic Treaty powers have held three consultative meetings under the Treaty, the first at Canberra in July 1961, the second at Buenos Aires in July 1962 and the third at Brussels in June 1964. The fourth consultative meeting is scheduled to be held in Santiago in November 1966.

COCOS (KEELING) ISLANDS

General description

The Cocos (Keeling) Islands, two separate atolls comprising some twenty-seven small coral islands with a total area of about 5½ square miles, are situated in the Indian Ocean in latitude 12° 5' S. and longitude 96° 53' E. They lie some 1,720 miles north-west of Perth and 2,290 miles almost due west of Darwin, while Johannesburg is some 3,800 miles further distant to the south-west, and Colombo is 1,400 miles to the north-west of the group.

The main islands of the Territory are West Island, the largest, about six miles from north to south, on which are the aerodrome and most of the European community; Home Island, the head-quarters of the Clunies-Ross Estate; Direction Island, on which are situated the Cable and Wireless Staⁿ. and the Department of Civil Aviation's marine base; and Horsburgh Island. North Keeling Island, which forms part of the Territory, lies about fifteen miles to the north of the group and has no inhabitants.

Main settlements are on West Island, Home Island and Direction Island. The group of atolls is low-lying, flat and thickly covered by coconut palms, and surrounds a lagoon which has a harbour in the northern part but which is extremely difficult for navigation.

The climate is equable and pleasant, usually being under the influence of the south-east trade winds for about three-quarters of the year. However, the winds vary at times, and meteorological reports from the Territory are particularly valuable to those engaged in forecasting for the eastern Indian Ocean. The temperature varies between 70° and 89° F., and the average rainfall is about 67 inches. There are occasional violent storms. The worst cyclone in the recorded history of the islands was in 1909, when about 400,000 coconut palms were uprooted or decapitated and the accompanying tidal wave left only five buildings standing.

The population at 30 June 1965 was 675.

History and administration

Summarized particulars of the discovery of the islands and their history up to 1946, when they became a dependency of the Colony of Singapore, are given in Year Book No. 51, page 140, and in earlier issues. On 23 November 1955 the Cocos Islands ceased to form part of the Colony of Singapore and were placed under the authority of the Commonwealth of Australia. The transfer was effected by an Order in Council made by Her Majesty Queen Elizabeth the Second under the Imperial Act entitled the Cocos Islands Act 1955 and by the *Cocos (Keeling) Islands Act 1955* of the Commonwealth whereby the islands were declared to be accepted by the Commonwealth as a Territory under the authority of the Commonwealth to be known as the Territory of Cocos (Keeling) Islands.

Responsibility for the administration of the Territory rests with the Minister for Territories. The first Official Representative was appointed on 23 November 1955 to take charge of the local administration of the Territory. Under the *Official Representative Ordinance 1955-1961* of the Territory the Official Representative is given such powers and functions in relation to the Territory as are delegated to him by the Minister under the *Cocos (Keeling) Islands Act 1955-1963* or are otherwise conferred on him under that Act or by or under any other law of the Territory. The laws of the Colony of Singapore which were in force in the islands immediately before the date of the transfer were, with certain exceptions, continued in force by the *Cocos (Keeling) Islands Act 1955-1963*. They may be amended or repealed by Ordinances made under the provisions of that Act which empower the Governor-General to make Ordinances for the peace, order and good government of the Territory.

Transport and communication

There is an international airport at West Island under the control of the Commonwealth Department of Civil Aviation. This is a re-fuelling point for aircraft of Qantas Empire Airways Ltd. and South African Airways, which operate weekly services between Australia and South Africa. Although there is no regular shipping service, vessels from Australia and Singapore call at intervals. There is a telegraph station, operated and staffed by the Overseas Telecommunications Commission (Australia), on Direction Island.

CHRISTMAS ISLAND

Christmas Island is an isolated bank situated in the Indian Ocean in latitude 10° 25' 22" S., longitude 105° 39' 59" E. It is approximately 220 miles south from Java Head, at the south entrance to Sunda Strait, 815 miles from Singapore and 1,630 miles from Fremantle. Christmas Island covers an area of about fifty-two square miles. It consists of a central plateau of about 600 to 800 feet with several prominent rises up to 1,170 feet. The plateau descends to the sea in a series of steep slopes alternating with terraces, the last dropping in a cliff of 200 to 300 feet to a shore terrace, terminating in a sea cliff of 10 to 150 feet, which is continuous round the island except in a few places, the chief of which is Flying Fish Cove where the principal settlement is located and which is also the only known anchorage.

The climate is healthy and pleasant, the prevailing winds being from the south-east to east-south-east from May to December, but from then to April (the wet season) they occasionally shift round to north to north-east. The average yearly rainfall is about 80 inches with a marked summer incidence. The porous nature of the ground prevents the formation of pools of water, but there are several good springs which maintain an adequate supply of fresh water for the small population and the installations. The mean average temperature is about 80° and does not vary greatly throughout the year.

The economy of the Territory is based almost entirely on the mining and extraction of phosphate. Because of the nature of the land there appears little prospect of establishing any other economic activity.

The population of Christmas Island at 30 June 1961 was 3,099 (1,963 males and 1,136 females). At 30 June 1965 the total population was 3,332.

Education

At 30 June 1965 there were two school systems on the Island—the Christmas Island school system which serves the majority of the children and a European school which serves a small number of children. The Christmas Island school system follows the Singapore curriculum, with twenty-six teachers, mostly Singapore trained, and 851 pupils (698 primary and 153 secondary). The European school follows the Western Australian primary school syllabus, with one teacher seconded from the Western Australian Department of Education, and 31 pupils.

Four Administration scholarships are available each year for Asian students who have completed a three year secondary course to enable them to receive further secondary education at Singapore or Malaya up to University Matriculation level. An education allowance of \$290 per annum, plus annual return fare for the scholar, is paid to Europeans resident in the Territory who send their children to Australia for secondary education. The British Phosphate Commission awards scholarships from time to time.

History and administration

Summarized particulars of the history of Christmas Island up to its administration by the United Kingdom as a separate Crown Colony from 1 January 1958, pending transfer to Australia, are given in Year Book No. 51, page 141, and in earlier issues. On 1 October 1958 the Island was transferred to the Commonwealth of Australia by the *Christmas Island Act* 1958 and is now administered as a Territory under the authority of the Commonwealth. Responsibility for the administration and government of the Territory rests with the Minister for Territories, and day to day affairs on the island are administered by an Official Representative under delegation from the Minister. The laws which were in force in the island at 30 September 1958 were continued as the laws of the Territory after its transfer to Australia.

Phosphate deposits

The only commercial activity carried out is the mining of phosphate. The British Phosphate Commissioners act as managing agents for the Christmas Island Phosphate Commission. There are three principal phosphate deposits on the island of which the largest is that now being worked at South Point. This field is situated on the 600 feet to 800 feet level and is approximately 12 miles from the drying and shipping plant at Flying Fish Cove. During 1964–65, 843,283 tons of phosphate were exported, comprising 767,582 tons to Australia and 75,701 tons to Malaysia.

Transport

Transport to and from the island is maintained by vessels operated under charter by the Christmas Island Phosphate Commission. One vessel makes regular trips between Christmas Island and Singapore, and other vessels carry phosphate to Fremantle and other Australian ports.

CHAPTER 30

INTERNATIONAL RELATIONS

Relations with Commonwealth and other countries

Commonwealth relations

Australia's international relations have developed as a natural concomitant of Australia's growth from colonial status to independent nationhood. During this process Australia has remained on terms of close friendship and understanding with the United Kingdom. This intimate association, together with close co-operation with other countries of the Commonwealth of Nations, remains a basic principle of Australia's foreign policy.

Australia is represented at meetings of Commonwealth Prime Ministers, Finance Ministers and Ministers for External Affairs. It belongs to the sterling area, retains, with limitations, the system of judicial appeal to the Privy Council, maintains High Commissioners in twelve other Commonwealth countries, and is a member of the main Commonwealth organizations providing for co-operation in economic, scientific, educational, and other fields.

Between meetings of Commonwealth Prime Ministers the Australian Prime Minister consults with other Commonwealth Prime Ministers on matters of mutual interest. In addition, there is a constant flow of messages between the Australian Government and Governments of other Commonwealth countries. In defence matters Australia's armed services send representatives to discussions by Commonwealth Chiefs of Staff; Australian naval ships take part in combined exercises with the navies of other Commonwealth members, and Australian officers maintain liaison with the Services of other Commonwealth countries.

Relations with the United States of America

An important feature of Australia's international relations is her relationship with the United States of America. This relationship is formally expressed in a treaty known as the ANZUS Treaty which was signed pursuant to Articles 51 and 52 of the United Nations Charter, and provides that in the event of armed attack on any one of them in the Pacific the U.S.A., Australia and New Zealand would each act to meet the common danger in accordance with its constitutional processes. The Treaty is designed to establish a closer working relationship between the three countries. The ANZUS partners, in their consultations, make no attempt to decide matters affecting the vital interest of other countries. The machinery of the ANZUS Treaty consists of a Council composed of the three Foreign Ministers or their deputies, which meets periodically to discuss matters of mutual concern.

Australia and Asia

Australia's geographical location to the south of Asia has become an increasingly important factor in Australia's foreign policy: Australia has sought to develop close relations and understanding with her Asian neighbours. This was evidenced by Australia's inclusion in 1963 as a full regional member of the Economic Commission for Asia and the Far East (ECAFE) and more recently by Australia's decision to join the Asian Development Bank. There has been increasing recognition by Asian leaders of Australia's concern with, and contribution to, the solution of the problems of the region.

SEATO

Following the cessation of fighting in Indo-China in 1954, Australia, with other countries situated in the south-east Asian region, or having responsibilities there, supported a proposal to form a collective defence alliance to guarantee the peace and security of the region from external aggression. On 8 September 1954 Australia, France, New Zealand, Pakistan, the Philippines, Thailand, the United Kingdom, and the United States signed the South-East Asian Collective Defence Treaty at Manila. They also signed a Pacific Charter stating the principles on which they had acted. A Protocol to the Treaty extended its operation to Cambodia, Laos and the free territory under the jurisdiction of the State of Vietnam, although no action on these territories would be taken except at the invitation or with the consent of the government concerned.

While primary emphasis has been placed on the defence significance of the Treaty, an organization has been established in Bangkok to co-ordinate activities to combat subversion both by counter-propaganda and security training and by the development of the economic and social welfare of the peoples of the Treaty Area. To facilitate this task the Australian Government in 1956 instituted a SEATO Aid Programme, under which by 30 June 1966 aid to the value of \$15 million had been given to member countries in Asia to help develop their capacity to resist aggression and subversion and to stimulate economic development. This programme is complementary to Australia's Colombo Plan contribution. Under the scheme Australia is providing two geodetic survey vessels to the Philippines, a military technical training school, a vehicle base

repair shop, and two 50 kW radio transmitters to Thailand, telecommunication and technical training equipment to Pakistan, and barbed wire, corrugated iron and blacksmith's tools for a town water supply system for Bien Hoa, two surgical teams, and primary school textbooks for Vietnam. Australia has also provided military training, and technical training in the fields of engineering, telecommunications, naval architecture and dockyard maintenance, security procedures, and surveying for nearly 200 trainees from Asian member countries. In addition, a number of senior service officers of other member countries have visited Australia to foster understanding and to develop co-operation between the armed forces.

The Colombo Plan

The Colombo Plan originated at a meeting of Commonwealth Foreign Ministers in Colombo in January 1950. The meeting set up a consultative committee to review economic development in south and south-east Asia. The task of this committee was to devise the most effective means of tackling the problems of economic development in the area and of focusing world attention on them.

Membership of the consultative committee is now made up of Australia, Canada, Ceylon, India, New Zealand, Pakistan, the United Kingdom, Malaysia, the United States, Burma, Cambodia, Indonesia, Japan, Laos, Nepal, the Philippines, Thailand, Vietnam, Korea, Bhutan, the Maldiv Islands, and Afghanistan.

Australian assistance under the Colombo Plan to 31 December 1965 amounted to \$122,396,800. Of this, \$85,674,000 had been spent on economic development projects and \$36,722,800 had been spent under the Technical Co-operation Scheme. Australia has placed emphasis on the importance of technical assistance in providing a base for economic development. A summary of expenditure, by country and under different heads, is set out in the following table.

AUSTRALIA'S EXPENDITURE ON THE COLOMBO PLAN TO 31 DECEMBER 1965 (\$'000)

Country	Economic development	Technical assistance				Grand total
		Training	Experts	Equipment	Total	
Country—						
Afghanistan . . .	..	30.4	0.2	..	30.6	30.6
Bhutan	269.6	..	..	..	..	269.6
Brunei . . . . .	..	76.6	1.0	..	77.6	77.6
Burma	3,518.6	1,300.8	119.0	514.4	1,934.2	5,452.8
Cambodia	2,199.8	143.2	187.4	153.2	483.8	2,683.6
Ceylon	8,394.6	838.8	385.0	317.6	1,541.4	9,936.0
India	27,184.4	1,780.6	227.6	650.8	2,659.0	29,843.4
Indonesia	8,187.6	4,221.2	1,021.2	511.4	5,753.8	13,941.4
Korea . . . . .	..	274.2	7.6	80.6	362.4	362.4
Laos	991.8	183.0	62.0	332.8	577.8	1,569.6
Malaysia—						
Malaya	1,071.9	3,262.8	932.6	538.4	4,733.8	5,805.6
Sabah	468.0	1,167.4	228.2	243.8	1,639.4	2,107.4
Sarawak	1,191.4	924.0	480.8	255.4	1,660.2	2,851.6
Nepal	265.0	163.8	61.2	29.6	254.6	519.6
Pakistan	23,583.6	1,504.6	507.8	876.6	2,889.0	26,472.6
Philippines	85.4	1,072.6	164.2	479.6	1,716.4	1,801.8
Singapore . . . . .	..	1,423.6	513.0	755.4	2,692.0	2,692.0
Thailand	4,369.4	1,620.4	409.4	685.6	2,715.4	7,084.8
Vietnam	3,265.8	1,035.8	362.2	897.6	2,295.6	5,561.4
General—						
Mekong Project . . .	..	..	342.2	130.0	472.2	472.2
Miscellaneous	627.2	..	..	..	2,233.6	2 860.8
Total	85,674.0	21,024.0	6,012.6	7,452.8	(a) 36,722.8	a 122,396.8

(a) Includes miscellaneous.

Economic development aid

Most of Australia's contribution under the Colombo Plan has been spent on providing predominantly Australian-made equipment for developmental projects or on gifts of commodities such as wheat, flour, fertilizer, coal, copper and condensed milk which have been sold in the recipient country to raise counterpart funds for agreed developmental projects.

The projects assisted by Australia cover a wide range, including irrigation and preparation of land for food crops, irrigation and electric power projects, secondary industries, municipal services, road building, transport and communications facilities, broadcasting equipment and lignite mining.

A Technical Co-operation Scheme has been an integral part of the Colombo Plan since its inception in 1950. Co-ordination of technical assistance is provided by a Council for Technical Co-operation, which meets regularly in Colombo, served by a Colombo Plan Bureau.

Technical assistance

Australia had spent a total of \$21,024,000 on training awards under the Colombo Plan up to 31 December 1965. A total of 6,105 awards for training in Australia had been made. The main fields of study include engineering, public administration, education, nursing, science, medicine and health, and agriculture. Substantial numbers have also been trained in such fields as accountancy, arts, economics, food technology, social studies, and industry.

At 31 December 1965 a total of 4,982 awards had been granted under the correspondence scholarship scheme inaugurated by Australia in 1955. Main fields of study are accountancy, engineering, English, and trade courses. Burma, Ceylon, India, Indonesia, Malaysia, the Philippines, and Thailand have joined the correspondence scheme. Malaysia has established a correspondence education scheme of its own, for which key personnel are trained in Australia under the Colombo Plan.

Australia had spent a total of \$6,012,600 on experts and advisers up to 31 December 1965. This involved the services of experts and advisers on 953 assignments. Of these, 61 experts were in the field at 31 December 1965. The majority were in Malaysia and Thailand.

The following table shows the number of training awards and experts provided to Colombo Plan countries by Australia up to 31 December 1965.

**AUSTRALIA: TRAINING AWARDS AND EXPERTS PROVIDED
UNDER COLOMBO PLAN TO 31 DECEMBER 1965**

Country	Training awards	Correspondence awards	Expert assignments
Afghanistan . . .	16	..	1
Brunei . . .	24	19	6
Burma . . .	441	404	31
Cambodia . . .	35	..	37
Ceylon . . .	335	733	74
India . . .	703	359	61
Indonesia . . .	1,015	296	94
Korea . . .	143	..	2
Laos . . .	72	..	11
Malaysia . . .	1,324	2,562	225
Nepal . . .	39	..	10
Pakistan . . .	473	..	74
Philippines . . .	436	77	33
Regional projects . .	346	..	26
Singapore . . .	..	380	123
Thailand . . .	471	152	106
Vietnam . . .	232	..	39
Total . . .	6,105	4,982	953

At 31 December 1965 a total of 398 requests for technical equipment had been or were being met, at a total cost of \$7,452,800.* The range of items supplied includes text books and Australian reference books for schools, universities and technical training institutions; equipment

* Includes \$130,000 for equipment used in the Mekong Project and included under General in the table on page 1132.

and tools for technical education; livestock and equipment for breeding programmes; radio receivers for use in remote areas; film projectors and visual aids for training centres; X-ray equipment for hospitals; and agricultural research equipment.

In addition to training awards, experts and equipment, technical assistance funds have been spent on contributions to the Colombo Plan Bureau, publications, International House, training centres, and the ECAFE Asian Economic Development Institute.

Participation in the United Nations

Australia's contributions to the United Nations

Australia played an active part in drafting the Charter of the United Nations at the Conference on International Organization in San Francisco in 1945 and has been a consistent supporter of the principles and objectives of the United Nations since its foundation. Australia's influence in the affairs of the United Nations has been exerted primarily through the annual debates in the General Assembly, through membership of the Security Council (1946-47 and 1956-57) and the Economic and Social Council (1948-50, 1953-55 and 1962-64), and through the Trusteeship Council. In virtue of responsibilities for administration of the Trust Territories of Nauru and New Guinea Australia has been a member of the Trusteeship Council since it was established.

In 1950 Australia joined fifteen other member States in answering the Security Council's call to help the Republic of Korea to repel Communist aggression from the north, and members of all three armed services took part in the three years of fighting which followed. Australia has also been directly involved in United Nations activities in many other parts of the world. Australia has contributed its share of the costs, both assessed and voluntary, of all United Nations peace-keeping operations, the largest of which have been the United Nations Emergency Force (UNEF) in the Middle East since 1956, the United Nations Operation in the Congo (ONUC) in 1960-64, and the United Nations Force in Cyprus (UNFICYP) since 1964. In addition to financial contributions, an element of 40 Australian policemen has been made available for service with UNFICYP.

In the economic, social and cultural sphere Australia has contributed to the work of the United Nations through membership of its specialized agencies and of the Economic and Social Council. Australia is a foundation member of one of the four Regional Economic Commissions—The Economic Commission for Asia and the Far East, the 4th and 15th Sessions of which were held in Australia. In 1963 Australia became a regional member of ECAFE.

Australia has had varying periods of service as a member of the executive bodies of the principal specialized agencies. As a leading agricultural country, Australia played a large part in the establishment of the Food and Agriculture Organization (FAO). Australia is a member of the Board of Governors of the International Atomic Energy Agency. Australia served as a member of the governing body of the International Labour Organisation either as a Titular Government member or as a Deputy member from 1945 to 1960, and in 1963 was again elected to the Governing Body as a Titular Government member for a further three-year term. Australia has also been a prominent member of the International Civil Aviation Organization since its inception, and in 1962 was re-elected to the Council as one of the nine States of principal civil aviation importance. Australia was a member of the executive board of the United Nations Children's Fund (UNICEF) from 1947 to 1961 and was re-elected in 1966 for a three-year term.

Australia's contributions in international aid

Australia's contributions towards various forms of international aid through the United Nations and other international organizations to 1964-65 amounted to about \$21,000,000. This is additional to the funds provided for the Colombo Plan and the cash grant for the development of Papua and New Guinea in 1964-65.

The Australian Government contributed \$7,351,842 to the United Nations Expanded Programme of Technical Assistance (EPTA) from the inception of the Programme in 1950 up to June 1965. This was spent on the provision of experts, training, supplies, and equipment, and supplemented Australian aid under the Technical Co-operation Scheme of the Colombo Plan. Australia also contributed \$1,230,000 to the Special Fund up to June 1965. EPTA and the Special Fund were merged on 1 January 1966 into the United Nations Development Programme (UNDP) and Australia's contribution to the Programme to 30 June 1966 was \$1,170,000.

Australian experts sent abroad under the United Nations aid programmes up to 31 December 1964 totalled 455. A total of 590 United Nations trainees had come to Australia up to 31 December 1964.

Other contributions by Australia (to June 1966) have included \$45,044,000 to the United Nations Relief and Rehabilitation Administration (UNRRA); \$6,594,112 to the International Refugee Organization; \$3,660,000 to Post-UNRRA Relief; \$13,575,986 for food and medical

supplies to the United Nations Children's Fund (UNICEF), which has been helping the underprivileged children of the world since its establishment in 1946; \$3,598,000 of essential supplies to the United Nations Korean Reconstruction Agency; \$2,960,000 of supplies to the United Nations Relief and Works Agency for Palestine refugees; \$1,307,900 for the programmes for the United Nations High Commissioner for Refugees; \$310,000 for the relief of Hungarian refugees; and \$95,000 for the WHO Malaria Eradication Special Account.

Australia has also contributed \$529,870 to the Inter-Governmental Committee for European Migration's programme for providing transportation from Hong Kong to countries of resettlement for refugees of European origin coming out of Mainland China.

In addition, Australia has made significant contributions to the development funds of international financial institutions; to June 1965 these amounted to \$42,530,000 to the International Bank for Reconstruction and Development, \$1,996,000 to the International Finance Corporation, and \$8,944,000 to the International Development Association.

In 1962 Australia supported the establishment of the UN/FAO World Food Programme and will contribute \$1,338,000 in cash and kind for the three years of the Programme. Australia contributed \$2.4 million by the end of 1963 to the Freedom from Hunger Campaign and this money will be used on projects in south and south-east Asia.

Diplomatic representation

The Department of External Affairs is responsible for advising the Minister for External Affairs and the Australian Government on the conduct of foreign affairs and relations with foreign Governments. Its officers staff the Australian diplomatic service and the consular and administrative service.

Australian missions overseas

In May 1966 Australia maintained the following diplomatic and consular missions abroad.

AUSTRALIAN MISSIONS OVERSEAS

Embassies (29)

- Argentina*—Calle Rivadavia 1829, Piso 5, Buenos Aires.
- Austria*—Concordia-platz 2/3, Vienna 1.
- Belgium*—4, boulevard Brand Whitlock, Woluwe-St.-Pierre, Brussels-4.
- Brazil*—Caixa Postal 251-ZC-00, Rio de Janeiro.
- Burma*—88 Strand Road, Rangoon.
- Cambodia*—94 Moha Vithei Preah Bat Norodom, Phnom Penh.
- Ethiopia**—C/o Australian High Commission, Nairobi, Kenya.
- France*—13 Rue Las Cases, Paris 7E.
- Germany, Federal Republic of†*—Kölnerstrasse 157, Bad Godesburg, Bonn.
- Greece*—8 Makedonon Street, Athens.
- Indonesia*—Pegangsaan Barat 14, Djakarta.
- Ireland*—33 Fitzwilliam Square, Dublin.
- Israel*—145 Hayarkon Street, Tel Aviv.
- Italy*—Via Sallustiana 26, Rome.
- Japan*—9 Mita Tsuna-Machi, Shiba, Minato-ku, Tokyo.
- Korea*—32-10 Songwoldong, Sudae moon-ku, Seoul.
- Laos*—Quartier Phone Xay, Vientiane.
- Mexico*—Mexico City.
- Nepal‡*—C/o Australian High Commission, New Delhi, India.
- The Netherlands*—Lange Voorhout 18, The Hague.
- The Philippines*—L & S Building, 1414 Roxas Street, Manila.
- South Africa*—Standard Bank Building, Church Square, Pretoria.
- Sweden*—Sergelstorg 12, Stockholm 40.
- Thailand*—323 Silom Road, Bangkok.
- Union of Soviet Socialist Republics*—13 Kropotkinsky Pereulok, Moscow.
- United Arab Republic*—1097 Corniche el Nil, Garden City, Cairo.
- United States of America*—1700 Massachusetts Avenue, Washington, D.C.
- Vietnam*—Caravelle Building, Place Lam Son, Saigon.
- Yugoslavia*—Belgrade.

* The Australian High Commissioner in Kenya is concurrently Ambassador to Ethiopia. † The Australian Ambassador is also head of the Australian Military Mission in Berlin. ‡ The Australian High Commissioner in India is concurrently Ambassador to Nepal.

High Commissions (13)

- Britain**—Australia House, The Strand, London, W.C.2.
Canada—Royal Bank Chambers, 90 Sparks Street, Ottawa, 4, Ontario.
Ceylon—3 Cambridge Place, Colombo, 7.
Ghana—6/26 Milne Avenue, Accra.
India†—9/48 Sardar Patel Road, Chanakyapuri, New Delhi.
Kenya—Silopark House, Queensway, Nairobi.
Malaysia—44 Ampang Road, Kuala Lumpur.
New Zealand—I.C.I. House, Molesworth Street, Wellington N1.
Nigeria—Investment House, 21–25 Broad Street, Lagos.
Pakistan—9 Kutchery Road, Karachi 4.
Singapore—MacDonald House, Orchard Road, Singapore 9.
Tanzania—Bank House, Independence Avenue, P.O., Box 2996.
Uganda‡—C/o Silopark House, Queensway, Nairobi.

Other (14)

Military Mission in Berlin§—Olympia Stadium, Charlottenburg 9, Berlin.

Mission to—

- European Economic Community*—4, boulevard Brand Whitlock, Woluwe-St.-Pierre, Brussels-4.
United Nations (New York)—750 Third Avenue, New York 17, New York.
United Nations (Geneva)—56–58 rue de Moillebeau, Petit Saconnex, 1211, Geneva 19.

Consulate-General in—

- Spain*—Calle General Sanjurjo 44, Madrid 3.
Switzerland—56–58 rue de Moillebeau, Petit Saconnex, 1211, Geneva 19.
New York—International Building, 636 Fifth Avenue, New York 20, New York.
San Francisco—350 Post Street, Union Square, San Francisco, California.

Consulate in—

- Denmark*—Nørrevold 68, Copenhagen.
Germany, Federal Republic of—2 Hamburg 39, Neuerwall 39, Hamburg.
New Caledonia—45 Tce. Rue de Verdun, Noumea.
Portuguese Timor—Dili.
South Africa—1001 Colonial Mutual Building, 106 Adderly Street, Cape Town.

Commission in—

- Fiji*—C.M.L.A. Building, 3 Central Street, Suva.

The Department of External Affairs is responsible for the control and administration of all the diplomatic and consular missions listed above with the exception of the High Commission, London, which is the responsibility of the Prime Minister's Department.

Specialist officers of the Trade Commissioner Service, other Commonwealth Government Departments and the Defence Services stationed abroad are attached to Australian diplomatic or consular missions. Senior attached officers are in some cases accredited to the missions with diplomatic or consular ranks approved by the Minister for External Affairs. In addition, the Department of Trade and Industry maintains Trade Commissioner posts which engage in trade promotion in a number of cities where Australia does not have diplomatic or consular representation (for complete list of Trade Commissioner posts, see page 1138).

The Department of Immigration similarly maintains eighteen offices overseas which engage in recruitment of migrants. A complete list of these offices is given on page 1139.

Diplomatic representatives in Australia

There are thirty-four non-Commonwealth and eight Commonwealth countries represented by diplomatic missions in Australia.

The following list shows the addresses of the overseas representatives in Australia. Full details of Commonwealth and foreign representation in Australia may be obtained from publications issued by the Department of External Affairs, Canberra. Consular representatives are not included. Particulars of these are contained in a publication *Consular Representatives and Trade Commissioners in Australia*, issued by the Department of External Affairs, Canberra. There are more than 180 such representatives in Australia, and fifty-three countries are represented.

* Administered by Prime Minister's Department. † The Australian High Commissioner in India is concurrently Ambassador to Nepal. ‡ The Australian High Commissioner in Kenya is concurrently High Commissioner to Uganda. § The Australian Ambassador to Germany is also head of the Australian Military Mission in Berlin.

DIPLOMATIC REPRESENTATIVES IN AUSTRALIA

Embassies (30)

- Argentina*—5a Arkana Street, Yarralumla, Canberra, A.C.T.
Austria—Ainslie Building, 39 Ainslie Avenue, Civic Centre, Canberra, A.C.T.
Belgium—19 Arkana Street, Yarralumla, Canberra, A.C.T.
Brazil—55 Mugga Way, Red Hill, Canberra, A.C.T.
Burma—85 Mugga Way, Red Hill, Canberra, A.C.T.
Cambodia—5 Canterbury Crescent, Deakin, Canberra, A.C.T.
China—70 Empire Circuit, Forrest, A.C.T.
France—6 Darwin Avenue, Acton, Canberra, A.C.T.
Germany, Federal Republic of—Empire Circuit, Yarralumla, Canberra, A.C.T.
Greece—22 Arthur Circle, Forrest, Canberra, A.C.T.
Indonesia—4 Hotham Crescent, Deakin, Canberra, A.C.T.
Ireland—Ainslie Building, 39 Ainslie Avenue, Civic Centre, Canberra, A.C.T.
Israel—Turrana Street, Yarralumla, Canberra, A.C.T.
Italy—27 State Circle, Deakin, Canberra, A.C.T.
Japan—3 Tennyson Crescent, Forrest, Canberra, A.C.T.
Korea—42 Mugga Way, Red Hill, Canberra, A.C.T.
Laos—71 National Circuit, Forrest, Canberra, A.C.T.
Mexico—Flat 7, 67 Jervois Street, Deakin, Canberra, A.C.T.
*Nepal**—C/o Kitamo Arms, Flat F12, 9, 2-chome, Hirakawa-cho, Chiyoda-ku, Tokyo, Japan.
The Netherlands—120 Empire Circuit, Yarralumla, Canberra, A.C.T.
The Philippines—1 Moonah Place, Yarralumla, Canberra, A.C.T.
Portugal—22 Bougainville Street, Manuka, Canberra, A.C.T.
South Africa—3 Zeehan Street, Red Hill, Canberra, A.C.T.
Sweden—Turrana Street, Yarralumla, Canberra, A.C.T.
Switzerland—37 Stonehaven Crescent, Deakin, Canberra, A.C.T.
Thailand—9 Daly Street, Deakin, Canberra, A.C.T.
Union of Soviet Socialist Republics—78 Canberra Avenue, Griffith, Canberra, A.C.T.
United Arab Republic—38 Empire Circuit, Forrest, Canberra, A.C.T.
United States of America—State Circle, Yarralumla, Canberra, A.C.T.
Vietnam—39 National Circuit, Forrest, Canberra, A.C.T.

High Commissioners (8)

- Britain*—Commonwealth Avenue, Canberra, A.C.T.
Canada—Commonwealth Avenue, Canberra, A.C.T.
Ceylon—35 Empire Circuit, Forrest, Canberra, A.C.T.
India—63 Mugga Way, Red Hill, Canberra, A.C.T.
Malaysia—71 State Circle, Acton, Canberra, A.C.T.
Malta—261 La Perouse Street, Red Hill, Canberra, A.C.T.
New Zealand—M.L.C. Building, London Circuit, Civic Centre, Canberra, A.C.T.
Pakistan—59 Franklin Street, Forrest, Canberra, A.C.T.

Legations (4)

- Denmark*—115 Pitt Street, Sydney, N.S.W.
Finland—537 New South Head Road, Double Bay, Sydney, N.S.W.
Peru—17 Canterbury Crescent, Deakin, Canberra, A.C.T.
Uruguay—22 Bougainville Street, Manuka, Canberra, A.C.T.

Agents-General for States

From early times the Australian colonies maintained agents in London to encourage immigration and to carry out commercial and financial negotiations. Since federation the States have continued to maintain Agents-General in London, all of whom work in close co-operation with the High Commissioner for Australia at Australia House, The Strand, London. The addresses of the Agents-General are as follows: New South Wales—56–57 The Strand, London, W.C.2; Victoria—Victoria House, Melbourne Place, The Strand, London, W.C.2; Queensland—Marble Hall, 409–10 The Strand, London, W.C.2; South Australia—South Australia House, 50 The Strand, London, W.C.2; Western Australia—Savoy House, 115 The Strand, London, W.C.2; Tasmania—457 The Strand, Charing Cross, London, W.C.2.

* The Nepalese Ambassador to Japan is concurrently Ambassador to Australia and to New Zealand.

Oversea trade representation

The Australian Trade Commissioner Service

The Department of Trade maintains Trade Commissioners in thirty-two countries. The first permanent Trade Commissioner Post was set up in Canada in 1929. Before that Australia's only official trade representatives abroad were in the High Commission Office in London and at the Office of the Commissioner-General for Australia in New York. By May 1965 Trade Commissioners were established at the following posts: United States of America—New York, Washington, Los Angeles, and San Francisco; Canada—Vancouver, Ottawa and Montreal; West Indies—Trinidad; Britain and Europe—London, The Hague, Vienna, Athens, Paris, Bonn, Hamburg, Geneva, Stockholm, and Rome; Persian Gulf—Bahrain; Africa—Lagos, Nairobi, Johannesburg, and Cairo; Lebanon—Beirut; India—New Delhi, Bombay and Calcutta; Ceylon—Colombo; South-East Asia—Singapore, Djakarta, Kuala Lumpur, Bangkok, and Hong Kong; Japan—Tokyo, Osaka; New Zealand—Wellington, Christchurch and Auckland; Philippines—Manila; Pakistan—Karachi; South America—Buenos Aires and Lima. Twenty-eight editions of the Department of Trade's promotion periodical *Austral News* now circulate in over 100 countries in four languages. (See also Australian Trade Missions in the chapter Oversea Transactions, page 403.)

The addresses of Australian Trade Commissioner Posts overseas are shown in the following list.

Trade Commissioner Service of the Commonwealth of Australia

- Argentina*—Australian Embassy, Seccion Comercial, Calle Rivadavia 1823-1° Piso-Dto. 'A', Buenos Aires.
- Austria*—Australian Embassy, Concordia-platz 2/3, Vienna 1.
- Bahrain*—Almoayyed Building, Government Road, Bahrain.
- Britain*—Australia House, The Strand, London, W.C.2.
- Canada*—1155 Dorchester Boulevard West, Montreal 2, P.Q.; Suite 608, Burrard Building, 1030 W. Georgia Street, Vancouver 5, B.C.; Australian High Commission, Royal Bank Chambers, 90 Sparks Street, Ottawa 4, Ontario.
- Ceylon*—Australian High Commission, 3 Cambridge Place, Colombo 7.
- France*—2nd Floor, 26 Rue de la Pépinière, Paris, 8E.
- Germany, Federal Republic of*—Australian Embassy, Kölnerstrasse 157, Bad Godesburg, Bonn; 2000 Hamburg 36, Neuerwall 39, Hamburg 11.
- Greece*—Australian Embassy, 8 Makedonon Street, Athens.
- Hong Kong*—Union House, Chater Road, Hong Kong.
- India*—Mercantile Bank Building, 52 Mahatma Gandhi Road, Bombay 1; 2 Fairlie Place, Calcutta 1; 34 Golf Links Road, New Delhi.
- Indonesia*—Djalan Nusantara 39, Djakarta.
- Italy*—Australian Embassy, Via Sallustiana 26, Rome.
- Japan*—9 Mita Tsuna-Machi, Shiba, Minato-ku, Tokyo; Asahi Seimei Building, 4th Floor, 50, 5 chome, Koraibashi-suji, Higashi-ku, Osaka.
- Kenya*—Silopark House, Queensway, Nairobi.
- Lebanon*—5th Floor, L'Union de Paris Building, Rue Maamari, Beirut.
- Malaysia*—44 Ampang Road, Kuala Lumpur.
- The Netherlands*—36 Jan Van Nassastraat, The Hague.
- New Zealand*—London and Lancashire Building, 56 Shortland Street, Auckland C.1; Phoenix Building, 89-91 Worcester Street, Christchurch; Australian High Commission, Fourth Floor, I.C.I. House, Molesworth Street, Wellington.
- Nigeria*—Australian High Commission, Investment House, 21-25 Broad Street, Lagos.
- Pacific Islands*—c/o Department of Trade and Industry, A.N.Z. Bank Building, Cnr. Pitt and Hunter Streets, Sydney, N.S.W.
- Pakistan*—Australian High Commission, 9 Kutchery Road, Karachi 4.
- Peru*—Monterosa Buildings, Jiron Arica 837, Lima.
- The Philippines*—Australian Embassy, L & S Building, 1414 Roxas Street, Manila.
- Singapore*—Australian High Commission, MacDonald House, Orchard Road, Singapore, 9.
- South Africa*—10th Floor, Europa House, 32 Plein Street, Johannesburg.
- Sweden*—Australian Embassy, Sergelstorg 12, Stockholm 40.
- Switzerland*—Australian Consulate-General, 56-58 Rue De Moillebeau, Petit Saconnex 1211, Geneva 19.
- Thailand*—Australian Embassy, 40 Chartered Bank Lane, Bangkok.
- Trinidad*—Colonial Building, 72 South Quay, Port-of-Spain, Trinidad, W.I.
- United Arab Republic*—Australian Embassy, 1097 Corniche el Nil, Garden City, Cairo.
- United States of America*—Paramount Buildings, 1735 Eye Street, N.W. Washington, D.C.; Australian Consulate-General, International Building, 636 Fifth Avenue, New York 20, New York; Australian Consulate-General, 350 Post Street, Union Square, San Francisco, California; 3600 Wilshire Boulevard, Los Angeles, 5 California.

Australian Trade Correspondents and Marketing Officers

Australian Trade Correspondents and Marketing Officers have no official status but supplement the work of the Trade Commissioner Service. Correspondents are located in Suva, Fiji; Valetta, Malta; Port Louis, Mauritius; Tel Aviv, Israel; and Istanbul, Turkey. A Marketing Officer is located in Rangoon, Burma.

Trade Commissioners of Oversea Governments in Australia

- Britain*—Senior British Trade Commissioner—Commonwealth Avenue, Canberra, A.C.T.
 British Trade Commissioners—London Assurance House, 16–20 Bridge Street, Sydney, N.S.W.; 330 Collins Street, Melbourne, Vic.; M.L.C. Building, Cnr. Adelaide and Edward Streets, Brisbane, Qld.; F.C.A. Building, Franklin Street, Adelaide, S.A.; Prudential Building, 189 St. George's Terrace, Perth, W.A.
 Office of the Hong Kong Government Trade Representative—Kembla Building, Margaret Street, Sydney, N.S.W.
 Office of the Fiji Government Representative—38 Martin Place, Sydney, N.S.W.
Canada—Canadian Trade Commissioners—A.M.P. Building, Circular Quay, Sydney, N.S.W.; 2 City Road, South Melbourne, Vic.
Ceylon—Ceylon Trade Commissioner—The Wales House, 66 Pitt Street, Sydney, N.S.W.
China—Telford House, 300 George Street, Sydney, N.S.W.
India—Indian Trade Commissioner—Caltex House, 167–187 Kent Street, Sydney, N.S.W.
Malaysia—Malaysian Trade Commissioner—71 State Circle, Acton, A.C.T.
New Zealand—Senior New Zealand Trade Commissioner—280–288 George Street, Sydney, N.S.W.
 New Zealand Government Trade Commissioner—330 Collins Street, Melbourne, Vic.
Pakistan—Bligh House, 4–6 Bligh Street, Sydney, N.S.W.
South Africa—South African Trade Commissioner—622 St. Kilda Road, Melbourne, Vic.

Commonwealth Migration Offices

The Department of Immigration has established eighteen offices overseas. A series of Regional Offices has also been set up in certain countries to provide additional facilities.

Chief Migration Officers are attached to Australian Diplomatic Missions to Britain, the Netherlands, Greece, Austria, Germany, and Italy. In Spain the Chief Migration Officer is also the Consul-General. Senior Migration Officers have been attached to the Diplomatic Missions to Sweden and the United Arab Republic, and Migration Officers to the missions to Switzerland, Belgium, Denmark, and France. In the Lebanon and Hong Kong a Senior Migration Officer is attached to the Australian Trade Commission, and in Malta an independent office has been established under the control of a Senior Migration Officer.

The Administrative Officer to the Australian Trade Commissioner in Nairobi deals with migration matters in Kenya, and the diplomatic staffs of missions in other countries where Australia is represented are available to handle migration business on behalf of the Department.

Senior Migration Officers overseas

- Austria*—Australian Embassy, Migration Office, Teinfaltstrasse 1, Vienna.
Belgium—Australian Embassy, 4, boulevard Brand Whitlock, Woluwe-St.-Pierre, Brussels-4.
Britain—'Canberra House' Migration Office, 10–16 Maltravers Street, Strand, London, W.C.2.
Denmark—Australian Consulate, Norrevold 68, Copenhagen.
Fiji—Australian Commission, C.M.L.A. Building, 3 Central Street, Suva.
France—Australian Embassy, Migration Office, 28 Rue de la Pépinière, Paris.
Germany, Federal Republic of—Australian Embassy, Migration Office, Victoria Haus, Hohenzollernring 103, Cologne.
Greece—Australian Embassy, Migration Office, 8 Makedonon Street, Athens.
Hong Kong—Australian Government Trade Commission, Union House, Chater Road, Hong Kong.
Italy—Australian Embassy, Migration Office, Via Magenta 5, Rome.
Lebanon—Australian Migration Office, Al Ghanem Building, 211 Madame Curie Street, Sana'eh, Beirut.
Malta—Australian Migration Office, Airways House, Gaiety Lane, Cnr. High Street, Sliema, Valletta, Malta.
The Netherlands—Australian Embassy, Migration Office, 1 Javastraat, The Hague.
Spain—Australian Consulate-General, Calle General Sanjurjo 44, Madrid 3.
Sweden—Australian Embassy, Sergelstorg 12, Stockholm 40.
Switzerland—Australian Consulate-General, 56–58 Rue de Moillebeau, Petit Saconnex, 1211, Geneva 19.
United Arab Republic—Australian Embassy, Migration Office, 12 Hassan Sabri Street, Zamalek, Cairo.
United States of America—Australian Consulate-General, International Building, 636 Fifth Avenue, New York 20, New York.
 Australian Consulate-General, 350 Post Street, Union Square, San Francisco, California.

CHAPTER 31

MISCELLANEOUS

This chapter comprises statistics and other descriptive information not directly related to the subjects of the preceding chapters, or which it is convenient to assemble in single sections, arranged as follows: Valuation of Australian production; Indexes of farm production; Consumption of foodstuffs and beverages; Retail trade; Interstate trade; Statistical organization in Australia; Statistical and other official publications of Australia.

Valuation of Australian production

The value of production for Australia is computed in accordance with the decisions reached at the Conferences of Australian Statisticians and principally at the Conference held in 1935. The figures published in the following tables have been compiled by the Statisticians in the various States from the latest and best data available and are on a substantially uniform basis. However, marketing costs are not on a completely comparable basis between States and, in addition, accurate information is difficult to obtain for many items. In consequence, differences between States in the relationships of local to gross value should be treated with some reserve.

Attention is directed to the fact that the values shown in the tables herein refer only to the production of primary industries and factories, and exclude the building and construction industry, those industrial establishments not classified as factories and certain agricultural and farmyard produce obtained from areas of less than one acre.

Explanation of terms used

The following is a brief explanation of the terms used.

- (a) *Gross value of production* is the value placed on recorded production at the wholesale price realized at the principal markets. In general, the 'principal markets' are the metropolitan markets in each State. In cases where primary products are consumed at the place of production or where they become raw material for a secondary industry, these points of consumption are presumed to be the principal markets.
- (b) *Local value* (i.e. gross production valued at the place of production) is ascertained by deducting marketing costs from the gross value. Marketing costs include freight, cost of containers, commission, and other charges incidental thereto.
- (c) *Net value of production* represents local value less value of materials used in the process of production. Materials used in the process of production include seed, power, power kerosene, petrol and other oils, fodder consumed by farm stock, manures, dips, sprays, and other costs. No deductions have been made for depreciation or certain maintenance costs as particulars are not available for all States. The net value of production is the only satisfactory measure to use when comparing or combining the value of primary industries with those of other industries.

For the years shown in the following tables, no allowance for power, power kerosene, petrol, and other oils has been made in New South Wales. In the case of the mining and quarrying industry, however, this allowance has been made in all States. Marketing costs for mining and quarrying and costs of materials used in the process of production in respect of bee-farming, trapping, forestry, and fishing and whaling are not available for all States. Local values have been used for these industries, with consequent understatement in gross value for the mining and quarrying industry and overstatement in net value for the other industries.

Value of production, Australia

The following table shows particulars of the gross, local and net values of production in Australia, by industry.

GROSS, LOCAL AND NET VALUE OF PRODUCTION OF PRIMARY INDUSTRIES
AND FACTORIES: AUSTRALIA, 1964-65

(\$'000)

Industry	Gross production valued at principal markets	Local value— gross production valued at place of production	Net value of production (with- out deduction of depreciation or maintenance)
Agriculture	1,323,722	1,126,044	978,771
Pastoral	1,483,049	1,356,346	1,221,300
Dairying	505,256	467,694	360,737
Poultry	137,425	119,294	50,916
Bee-farming	5,119	4,118	(a) 4,118
<i>Total, rural</i>	<i>3,454,571</i>	<i>3,073,496</i>	<i>2,615,842</i>
Trapping	14,601	13,060	(a) 13,060
Forestry	120,801	111,128	(a) 111,128
Fishing and whaling	42,768	39,022	(a) 39,022
Mining and quarrying	(a) 492,208	492,208	397,822
<i>Total, non-rural</i>	<i>670,378</i>	<i>655,418</i>	<i>561,032</i>
<i>Total, all primary</i>	<i>4,124,949</i>	<i>3,728,914</i>	<i>3,176,874</i>
Factories	(b) 5,897,054	5,897,054	5,897,054
Grand total	10,022,003	9,625,968	9,073,928

(a) Local value. (b) Net value.

Net value of production

The following tables show the total net value of production and the net value per head of population, for each industry and State.

NET(a) VALUE OF PRODUCTION OF PRIMARY INDUSTRIES AND FACTORIES
STATES AND TERRITORIES, 1964-65

(\$'000)

Industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Agriculture	293,883	236,382	193,673	134,239	92,800	27,223	222	349	978,771
Pastoral	451,308	309,668	220,988	110,054	101,069	21,040	5,372	1,741	1,221,300
Dairying	116,825	136,097	50,707	25,028	12,601	19,043	96	340	360,737
Poultry	16,696	24,407	4,493	1,516	1,589	1,596	237	382	50,916
Bee-farming(b)	1,714	867	350	536	519	121	..	11	4,118
<i>Total, rural</i>	<i>880,486</i>	<i>707,421</i>	<i>470,211</i>	<i>271,373</i>	<i>208,578</i>	<i>69,023</i>	<i>5,927</i>	<i>2,823</i>	<i>2,615,842</i>
Trapping(b)	4,105	5,469	1,367	893	678	406	82	..	13,060
Forestry(b)	31,586	32,076	13,482	8,801	11,323	13,270	276	314	111,128
Fishing and whaling(b)	8,263	3,551	5,298	4,478	15,167	2,194	71	..	39,022
Mining and quarrying	195,390	37,056	74,996	34,068	32,162	18,174	5,506	468	397,822
<i>Total, non-rural</i>	<i>239,404</i>	<i>78,152</i>	<i>95,143</i>	<i>48,240</i>	<i>59,330</i>	<i>34,044</i>	<i>5,935</i>	<i>782</i>	<i>561,032</i>
<i>Total, all primary</i>	<i>1,119,890</i>	<i>785,573</i>	<i>565,354</i>	<i>319,613</i>	<i>267,908</i>	<i>103,067</i>	<i>11,862</i>	<i>3,605</i>	<i>3,176,874</i>
Factories	2,521,476	1,949,665	478,423	498,588	260,637	167,250	6,654	14,360	5,897,054
Grand total	3,641,366	2,735,238	1,043,777	818,201	528,545	270,317	18,516	17,965	9,073,928

(a) See letterpress on page 1140. (b) Local value.

**NET(a) VALUE OF PRODUCTION OF PRIMARY INDUSTRIES AND FACTORIES
PER HEAD OF POPULATION, STATES, 1964-65**

(\$)

Industry	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Australia (b)
Agriculture	70.69	74.58	121.33	128.67	116.36	73.96	87.01
Pastoral	108.56	97.71	138.44	105.49	126.73	57.16	108.57
Dairying	28.10	42.95	31.77	23.99	15.80	51.74	32.07
Poultry	4.02	7.70	2.81	1.46	1.99	4.33	4.52
Bee-farming(c)	0.41	0.27	0.22	0.51	0.65	0.33	0.37
<i>Total, rural</i>	<i>211.78</i>	<i>223.21</i>	<i>294.57</i>	<i>260.12</i>	<i>261.53</i>	<i>187.52</i>	<i>232.54</i>
Trapping(c)	1.00	1.73	0.85	0.86	0.85	1.11	1.16
Forestry(c)	7.59	10.12	8.45	8.44	14.20	36.05	9.88
Fishing and whaling(c)	1.99	1.12	3.32	4.29	19.01	5.96	3.47
Mining and quarrying	47.00	11.69	46.98	32.65	40.33	49.37	35.37
<i>Total, non-rural</i>	<i>57.58</i>	<i>24.66</i>	<i>59.60</i>	<i>46.24</i>	<i>74.39</i>	<i>92.49</i>	<i>49.87</i>
<i>Total, all primary</i>	<i>269.36</i>	<i>247.87</i>	<i>354.18</i>	<i>306.36</i>	<i>335.92</i>	<i>280.01</i>	<i>282.42</i>
Factories	606.47	615.18	299.72	477.91	326.80	454.38	522.36
Grand total	875.83	863.05	653.90	784.27	662.72	734.39	804.78

(a) See letterpress on page 1140.

(b) Includes Northern Territory and Australian Capital Territory.

(c) Local value.

The following table shows the net value of production for Australia, by industry.

**NET(a) VALUE OF PRODUCTION OF PRIMARY INDUSTRIES AND
FACTORIES: AUSTRALIA, 1960-61 TO 1964-65**

(\$'000)

Industry	1960-61	1961-62	1962-63	1963-64	1964-65
Agriculture	783,722	733,006	830,414	917,388	978,771
Pastoral	916,338	962,676	1,078,698	1,340,578	1,221,300
Dairying	284,262	272,994	307,358	330,218	360,737
Poultry	61,996	49,744	52,836	61,508	50,916
Bee-farming(b)	2,916	3,226	2,990	5,144	4,118
<i>Total, rural</i>	<i>2,049,234</i>	<i>2,021,646</i>	<i>2,272,296</i>	<i>2,654,836</i>	<i>2,615,842</i>
Trapping(b)	13,202	11,776	11,416	13,364	13,060
Forestry(b)	102,404	95,236	96,102	102,624	111,128
Fishing and whaling(b)	25,626	28,588	30,622	31,684	39,022
Mining and quarrying	278,054	274,490	291,028	325,596	397,822
<i>Total, non-rural</i>	<i>419,286</i>	<i>410,090</i>	<i>429,168</i>	<i>473,268</i>	<i>561,032</i>
<i>Total, all primary</i>	<i>2,468,520</i>	<i>2,431,736</i>	<i>2,701,464</i>	<i>3,128,104</i>	<i>3,176,874</i>
Factories(c)	4,349,835	4,394,635	4,795,241	5,270,004	5,897,054
Grand total	6,818,355	6,826,371	7,496,705	8,398,108	9,073,928

(a) See letterpress on page 1140. (b) Local value. (c) Excludes Northern Territory and Australian Capital Territory prior to 1964-65.

Indexes of farm production

In the first two tables in this section indexes of price and quantum (i.e. value at constant prices) of production are given for the following industrial groups: Agriculture, Pastoral, Dairying, poultry and bee-farming, and All farming combined (including separate indexes for Wool and Products other than wool). In the third table indexes of quantum (i.e. value at constant prices) of production, exports and consumption of farm products for food use are shown.

Farm production price indexes

The farm production price indexes shown in the following table relate to average 'prices' of agricultural, pastoral, dairying, poultry and bee-farming products realized at the principal markets of Australia. The 'price' data used are average unit values for the total quantities of the relevant commodities produced or marketed in each year, and the index numbers therefore measure both the effects of changes in prices (as such) and of variations in the quality, type, usage, etc. of products marketed. The index numbers for any year relate to the average values of products produced or marketed in that year, irrespective of the periods in which payment is received by producers.

The indexes have been calculated by the fixed-base weighted aggregative method. 'Prices' for each commodity in any year are obtained by dividing gross value of production by the quantity produced in that year. In the original published series of Production Price Index Numbers the average quantities of the relevant commodities *produced* in the period 1923-24 to 1927-28 were used as fixed weights. This series, re-computed to the base average 1936-37 to 1938-39 = 100, was published in earlier issues of the Year Book (see No. 43, page 1050). For 1936-37 and later years the original series was replaced in December 1952 by a revised series in which average quantities of each product *marketed* during the period 1946-47 to 1950-51 were used as fixed weights. In the revised series the regimen was extended and modified to include farm products (as defined by Australian Statisticians) in all cases. Certain other refinements were also incorporated in the revised indexes, the principal of which was the omission from the weights used for the All farming Index of quantities of crops marketed for livestock feeding in Australia.

**FARM PRODUCTION: INDEXES OF PRICES AT PRINCIPAL MARKETS, AUSTRALIA
1950-51 TO 1964-65**

(Base: Average of 3 years ended June 1939 = 100)

Year	Agri- culture	Pastoral	Dairying, poultry and bee- farming	All farming	Wool (shorn and dead)	Products other than wool
1950-51 . . .	291	818	258	505	1,098	308
1951-52 . . .	355	501	332	410	552	363
1952-53 . . .	364	531	387	440	623	379
1953-54 . . .	324	534	395	429	621	365
1954-55 . . .	316	489	371	401	540	355
1955-56 . . .	330	451	392	397	468	373
1956-57 . . .	336	536	386	432	607	374
1957-58 . . .	336	435	382	388	473	359
1958-59 . . .	322	396	386	369	370	369
1959-60 . . .	329	464	402	403	440	391
1960-61 . . .	349	443	402	401	397	403
1961-62 . . .	348	421	373	385	412	376
1962-63 . . .	334	450	388	396	449	378
1963-64 . . .	351	511	402	431	531	398
1964-65 . . .	351	460	423	415	437	408

Indexes of quantum (i.e. value at constant prices) of farm production

The indexes shown in the following table relate to gross output of farm products valued at constant prices. They have been calculated by revaluing quantities of each farm product included in the indexes at the average unit gross value of each product for the base years.

In the original published series the period 1923-24 to 1927-28 was adopted as the base for revaluing each farm product. This series, re-computed to the base average 1936-37 to 1938-39 = 100, was published in earlier issues of the Year Book (*see* No. 43 page 1051). For 1936-37 and later years the original series was replaced in December 1952 by a revised series in which average unit values for the period 1936-37 to 1938-39 were used. The regimen used for the revised series was extended and modified to include farm products (as defined by Australian Statisticians) in all cases. Certain other refinements were incorporated in the revised indexes, the principal of which was the omission, in calculating the All farming Index, of quantities of crops fed to livestock in Australia.

**INDEXES OF QUANTUM(a) OF FARM PRODUCTION: AUSTRALIA
1950-51 TO 1964-65**

(Base: average of 3 years ended June 1939 = 100)

Year	Agri- culture	Pastoral	Dairying, poultry and bee- farming	All farming	Wool (shorn and dead)	Products other than wool
1950-51	108	109	106	109	116	107
1951-52	103	105	97	103	112	100
1952-53	121	126	108	121	131	118
1953-54	129	123	107	122	128	120
1954-55	120	127	117	123	132	120
1955-56	134	136	120	131	146	127
1956-57	120	148	117	131	164	121
1957-58	109	142	114	124	148	116
1958-59	165	159	119	149	164	145
1959-60	140	163	123	144	172	136
1960-61	177	152	120	152	165	148
1961-62	163	160	128	155	174	150
1962-63	191	163	129	166	170	165
1963-64	196	172	131	174	183	171
1964-65	218	172	136	181	183	180

(a) Indexes of value at constant prices, i.e. quantities revalued at average unit values for the base years (*see* text preceding table).

Farm products for food use: Indexes of Quantum (i.e. Value at Constant Prices) of Production, Exports and Consumption

The indexes shown in the following table have been calculated by revaluing quantities of each farm product included in the indexes at the average unit gross value of each product for the years 1936-37 to 1938-39. The items included comprise products in the form in which they are sold from farms in all cases except livestock sold for slaughter for meat, which are included in terms of dressed carcass weight of meat. Quantity data relating to exports include exports of processed food in terms of farm product equivalent. The indexes of production relate basically to gross output of farm products for food use, including crops exported for stock-feeding overseas.

**FARM PRODUCTS FOR FOOD USE: INDEXES OF QUANTUM^(a) OF
PRODUCTION, EXPORTS AND CONSUMPTION,
AUSTRALIA, 1950-51 TO 1964-65**

(Base: average of 3 years ended June 1939 = 100)

Year	Production		Exports		Consumption in Australia	
	Total	Per head of total population	Total	Per head of total population	Total	Per head of total population
1950-51	109	90	104	86	120	99
1951-52	100	81	70	57	119	96
1952-53	118	93	113	89	119	94
1953-54	122	94	102	79	124	96
1954-55	121	91	117	89	127	96
1955-56	129	95	131	97	131	97
1956-57	123	88	118	85	136	98
1957-58	115	81	90	64	139	98
1958-59	146	101	137	94	142	98
1959-60	138	93	132	89	145	98
1960-61	148	98	170	112	143	95
1961-62	154	99	161	104	150	97
1962-63	168	106	187	119	154	98
1963-64	175	109	207	129	159	99
1964-65p	184	112	220	134	165	101

^(a) Indexes of value at constant prices, i.e. quantities revalued at average unit values for the base years (see text preceding table).

Consumption of foodstuffs and beverages

Quantities consumed

The estimates of total consumption and consumption per head of population in Australia in the two tables which follow have been compiled by deducting net exports from the sum of production and imports and allowing for recorded movements in stocks of the respective commodities. While the estimates may be generally accepted as being reasonably accurate, there are some deficiencies to which attention should be directed. These relate chiefly to the quantities of poultry, game and fish (fresh and shell) and the quantities of certain oils and fats entering consumption. In addition, little information is available on the quantities of vegetables, fruit, eggs, etc. which householders produce for their own requirements and the extent of wastage occurring in the marketing of foodstuffs. In all these cases careful estimates have been compiled from the best available data, and the quantities shown as entering consumption in Australia have been adjusted to allow for these circumstances. The absence of particulars for stocks of certain commodities has resulted in some inaccuracies in the estimates of annual consumption. Consumption of foodstuffs is measured in general at 'producer' level. As a result, no allowance is made for wastage before the foodstuffs are consumed. In recent years wastage of foodstuffs has possibly been less than previously because of more efficient distribution and storage methods. Furthermore, it is likely that the quantities of foodstuffs shown in the following pages as available for consumption have been supplemented by production by householders for their own requirements. In most cases broad estimates of non-commercial (householders') production have been made. Except in a few special cases, no adjustment has been made for changes in stocks held by wholesalers and retailers. Where no allowance is made it is considered unlikely that these stocks would make any appreciable difference to consumption estimates. Allowance has not been made for the purchase of foodstuffs for dispatch overseas as gifts in bulk and by parcel post. These deficiencies, however, do not seriously impair the accuracy of the estimates compiled.

The estimates of consumption per head of population shown in the second of the following tables have been derived by dividing the total apparent consumption of each commodity or commodity group in a given year by the mean population of Australia in the same period.

More detailed information on the consumption of foodstuffs and beverages is contained in the statistical bulletin: *Report on Food Production and the Apparent Consumption of Foodstuffs and Nutrients in Australia*, issued by this Bureau.

The following tables show the average annual consumption during the three-year periods ended 1938-39, 1948-49 and 1958-59, together with the data for each of the years 1962-63, 1963-64 and 1964-65.

ESTIMATED QUANTITY OF FOODSTUFFS AND BEVERAGES AVAILABLE FOR CONSUMPTION ANNUALLY: AUSTRALIA, 1936-37 TO 1964-65

Commodity	Average three years ended—			1962-63	1963-64	1964-65 p
	1938-39	1948-49	1958-59			
Milk and milk products—						
Fluid whole milk	mill. gals. 161	233	276	300	311	327
Fresh cream	'000 tons 19.7	5.1	8.7	9.7	9.8	10.0
Condensed, concentrated and evaporated milk—						
Full cream—						
Sweetened	13.2	11.9	11.3	9.5	11.9	10.8
Unsweetened	13.6	27.6	32.3	33.1	39.5	
Skim	n.a.	5.6	8.6	11.5	9.8	
Powdered milk—						
Full cream	8.1	11.0	11.0	12.2	11.7	12.2
Skim	1.9	10.7	18.8	24.1	23.5	
Infants' and invalids' foods	3.0	4.3	9.4	12.7	13.6	15.4
Cheese	13.4	18.8	25.0	32.4	35.3	35.3
<i>Total milk and milk products (in terms of milk solids).</i>	120.5	167.4	212.4	242.1	256.7	267.1
Meat—						
Beef and veal (carcass weight)	430.3	372.7	538.4	484.7	515.0	498.6
Mutton	184.1	154.0	221.6	249.1	237.8	232.3
Lamb	46.0	86.1	127.7	203.0	205.1	197.3
Pigmeat	26.2	24.3	43.6	58.0	56.7	59.8
Offal	25.7	30.3	49.7	60.0	63.4	62.4
Canned meat (canned weight)	6.5	9.0	17.9	20.6	21.1	23.0
Bacon and ham (cured carcass weight)	31.5	39.9	30.5	36.0	36.1	37.9
<i>Total meat (in terms of carcass equivalent weight)</i>	769.9	736.9	1,054.1	1,134.7	1,158.4	1,129.0
Poultry, game and fish—						
Poultry and rabbits (dressed weight)	n.a.	n.a.	n.a.	n.a.	n.a.	65.3
Fish (edible weight)—						
Fresh—						
Australian origin	13.8	15.8	16.3	15.9		
Imported	19.7	19.4	9.0	13.2	15.4	15.1
Cured (including smoked and salted)	3.8	4.8	4.7	3.9		
Crustaceans and molluscs	2.1	2.1	3.8	6.3	6.0	7.3
Canned—Australian origin	3.3	4.5	3.9	5.3		
Imported	12.4	10.5	7.4	9.2	11.5	11.9
<i>Total poultry, game and fish (edible weight)</i>	n.a.	n.a.	n.a.	n.a.	n.a.	97.0
Eggs and egg products (in terms of eggs in shell)—						
Eggs in shell	78.7	86.5	92.1	(a)119.9	(a)123.0	(a)126.4
Egg pulp	2.9	8.6	5.7	(a) 6.3	(a) 7.7	(a) 7.8
Egg powder . . . . .	..	..	0.2	(a) 0.5	(a) 0.6	(a) 0.8
<i>Total eggs and egg products</i>	81.6 139.3	95.1 162.3	98.0 167.3	(a)126.7 189.1	(a)131.3 196.0	(a)135.0 201.6
Fats and oils—						
Butter	'000 tons 101.4	84.7	118.4	114.7	115.1	112.9
Margarine—						
Table	2.8	3.0	15.5	15.8	15.6	22.4
Other	12.2	18.7	21.2	30.2	32.3	30.8
Vegetable oils and other fats	14.4	13.8	19.6	21.7	22.2	22.6
<i>Total fats and oils (fat content)</i>	115.5	105.5	148.3	155.8	158.3	162.0

For footnotes see next page.

ESTIMATED QUANTITY OF FOODSTUFFS AND BEVERAGES AVAILABLE FOR CONSUMPTION ANNUALLY: AUSTRALIA, 1936-37 TO 1964-65—continued

Commodity	Average three years ended—			1962-63	1963-64	1964-65 p
	1938-39	1948-49	1958-59			
Sugar and syrups—						
Refined sugar—						
As sugar '000 tons	216.5	234.6	259.0	252.4	262.6	259.8
In manufactured products "	110.1	174.2	226.1	273.7	274.1	294.5
Honey, glucose and syrups (sugar content) "	17.3	19.1	22.8	23.2	31.0	36.5
Total sugar and syrups (sugar content) "	343.9	427.9	507.9	549.3	567.7	590.8
Pulse and nuts—						
Dried pulse "	4.5	7.4	11.1	16.0	15.3	14.8
Peanuts (weight without shell) "	2.8	8.7	7.2	12.6	9.5	8.9
Edible tree nuts (weight without shell) "	2.6	4.4	6.7	9.4	10.0	10.5
Cocoa (raw beans) "	6.3	11.6	12.1	16.8	13.9	21.8
Total pulse and nuts "	16.2	32.1	37.1	54.8	48.7	56.0
Fruit—						
Citrus fruit(b) "	97.8	127.2	153.8	230.6	208.7	255.9
Other fresh fruit "	288.2	297.5	341.4	401.5	435.3	393.0
Jams "	35.1	42.5	37.5	39.4	38.3	36.8
Dried fruit "	24.8	30.0	26.4	35.8	25.9	37.1
Canned fruit "	31.9	37.3	59.4	99.8	91.5	87.0
Total fruit (fresh fruit equivalent) "	532.3	607.9	691.4	912.5	878.5	924.5
Vegetables—						
Leafy and green vegetables "	n.a.	154.0	172.1	205.9	212.3	233.0
Tomatoes(b) (c) 48.0	86.3	124.4	133.0	143.3	159.1	159.1
Root and bulb vegetables "	n.a.	143.7	152.8	160.2	158.7	174.1
Potatoes—						
White "	318.5	424.3	495.4	594.3	507.7	469.0
Sweet "	7.4	5.3	6.1	6.8	6.9	7.0
Other vegetables "	n.a.	162.8	178.4	183.4	176.3	177.6
Total vegetables "	n.a.	976.4	1,129.2	1,283.6	1,205.2	1,219.8
Grain products—						
Flour (including wheatmeal for baking and sharps) "	574.0	689.7	789.1	804.2	849.1	845.3
Breakfast foods "	32.5	45.8	58.8	66.9	71.6	71.2
Rice (milled) "	12.2	3.0	16.1	17.9	18.2	18.6
Tapioca, sago, etc. "	3.7	2.3	1.4	1.1	1.0	0.9
Pearl barley "	3.0	1.7	2.0	1.8	1.6	1.7
Edible starch (cornflour) "	4.3	4.9	2.7	n.a.	n.a.	n.a.
Total grain products "	629.7	747.4	870.1	891.9	941.5	937.7
Beverages—						
Tea "	21.1	22.1	26.1	27.9	28.1	29.6
Coffee(d) "	2.0	3.4	5.9	10.7	10.7	12.3
Beer mill. gals.	80.1	129.5	221.0	245.9	259.2	272.6
Wine "	4.2	9.8	11.1	12.6	13.4	13.8
Spirits mill. pf. gals.	1.5	2.4	2.8	3.4	3.7	4.0

(a) Not comparable with data prior to 1960-61, in which year the average weight of an egg was altered in calculations from 1.75 oz. to 2 oz. (b) Includes fresh equivalent of manufactured products. (c) Probably understated owing to lack of complete data. (d) Coffee and coffee products in terms of pure processed whole or ground coffee.

**ESTIMATED QUANTITY OF FOODSTUFFS AND BEVERAGES AVAILABLE FOR
CONSUMPTION ANNUALLY PER HEAD OF POPULATION: AUSTRALIA
1936-37 TO 1964-65**

Commodity	Average three years ended—			1962-63	1963-64	1964-65 p
	1938-39	1948-49	1958-59			
Milk and milk products—						
Fluid whole milk gallons	23.4	30.5	28.3	27.8	28.2	29.1
Fresh cream lb.	6.1	1.5	2.0	2.0	2.0	2.0
Condensed, concentrated and evaporated milk—						
Full cream—						
Sweetened "	4.3	3.5	2.6	2.0	2.4	2.2
Unsweetened "		4.0	6.4	6.7	6.7	7.9
Skim "	n.a.	n.a.	1.3	1.8	2.3	2.0
Powdered milk—						
Full cream "	2.6	3.2	2.5	2.5	2.4	2.4
Skim "		0.6	2.5	3.9	4.9	4.7
Infants' and invalids' foods "	1.0	1.3	2.2	2.6	2.8	3.1
Cheese "	4.4	5.5	5.7	6.7	7.2	7.0
<i>Total milk and milk products (in terms of milk solids).</i> "	39.3	49.1	48.7	50.1	52.2	53.3
Meat—						
Beef and veal (carcass weight) "	140.3	109.1	123.8	100.4	104.6	99.3
Mutton "	60.0	45.1	51.0	51.6	48.3	46.2
Lamb "	15.0	25.2	29.3	42.1	41.7	39.3
Pigmeat "	8.5	7.1	10.1	12.0	11.5	11.9
Offal "	8.4	8.9	11.4	12.4	12.9	12.4
Canned meat (canned weight) "	2.1	2.6	4.1	4.3	4.3	4.6
Bacon and ham (cured carcass weight) "	10.2	11.7	7.1	7.4	7.3	7.5
<i>Total meat (in terms of carcass equivalent weight)</i> "	250.9	215.7	242.4	235.1	235.3	224.8
Poultry, game and fish—						
Poultry and rabbits (dressed weight) "	n.a.	n.a.	n.a.	n.a.	n.a.	13.0
Fish (edible weight)—						
Fresh—						
Australian origin "	6.4	5.7	3.2	3.3	3.3	3.2
Imported "			2.1	2.7	3.1	3.0
Cured (including smoked and salted) "	0.7	0.6	0.9	1.0	1.0	0.7
Crustaceans and molluscs "			0.9	1.3	1.2	1.4
Canned—						
Australian origin "	4.1	3.0	0.8	0.9	0.8	1.0
Imported "			1.7	1.9	2.3	2.4
<i>Total poultry, game and fish (edible weight)</i> "	n.a.	n.a.	n.a.	n.a.	n.a.	19.2
Eggs and egg products (in terms of eggs in shell)—						
Eggs in shell "	25.7	25.4	21.2	(a) 24.8	(a) 25.0	(a) 25.2
Egg pulp "	0.9	2.5	1.3	(a) 1.3	(a) 1.6	(a) 1.5
Egg powder . . . . . "	..	..	..	(a) 0.1	(a) 0.1	(a) 0.2
<i>Total eggs and egg products</i> { no.	26.6 243	27.9 255	22.5 206	(a) 26.2 210	(a) 26.7 214	(a) 26.9 215
Fats and oils—						
Butter lb.	32.9	24.8	27.2	23.8	23.4	22.5
Margarine—						
Table "	0.9	0.9	3.6	3.3	3.2	4.5
Other "	4.0	5.2	4.9	6.3	6.6	6.1
Vegetable oils and other fats "	6.4	5.3	4.5	4.5	4.5	4.5
<i>Total fats and oils (fat content)</i> "	37.6	30.9	34.1	32.4	32.2	32.2
Sugar and syrups—						
Refined sugar—						
As sugar "	70.6	68.7	59.6	52.3	53.3	51.7
In manufactured products "	35.9	51.0	52.0	56.7	55.7	58.7
Honey, glucose and syrups (sugar content) "	5.5	5.6	5.2	4.8	6.3	7.3
<i>Total sugar and syrups (sugar content)</i> "	112.0	125.3	116.8	113.8	115.3	117.7

For footnotes see next page.

ESTIMATED QUANTITY OF FOODSTUFFS AND BEVERAGES AVAILABLE FOR
CONSUMPTION ANNUALLY PER HEAD OF POPULATION: AUSTRALIA
1936-37 TO 1964-65—continued

Commodity		Average three years ended—			1962-63	1963-64	1964-65 p
		1938-39	1948-49	1958-59			
Pulse and nuts—							
Dried pulse	lb.	1.5	2.1	2.6	3.3	3.1	3.0
Peanuts (weight without shell)	"	0.9	2.5	1.7	2.6	1.9	1.8
Edible tree nuts (weight without shell)	"	0.8	1.3	1.5	2.0	2.0	2.1
Cocoa (raw beans)	"	2.1	3.4	2.8	3.5	2.8	4.3
Total pulse and nuts	"	5.3	9.3	8.6	11.4	9.8	11.2
Fruit—							
Citrus fruit(b)	"	31.9	37.2	35.4	47.7	42.4	50.9
Other fresh fruit	"	94.0	87.1	78.4	83.2	88.4	78.2
Jams	"	11.4	12.4	8.6	8.2	7.8	7.3
Dried fruit	"	8.1	8.7	6.0	7.4	5.2	7.4
Canned fruit	"	10.4	11.0	13.6	20.6	18.6	17.3
Total fruit (fresh fruit equivalent)	"	173.6	178.0	157.6	189.1	178.5	184.1
Vegetables—							
Leafy and green vegetables	"	n.a.	45.1	39.5	42.6	43.1	46.4
Tomatoes(b)	"	(c) 15.7	25.3	28.6	27.5	29.1	31.7
Root and bulb vegetables	"	n.a.	42.1	35.1	33.2	32.2	34.7
Potatoes—							
White	"	103.8	124.2	113.9	123.1	103.1	93.4
Sweet	"	2.4	1.5	1.4	1.4	1.4	1.4
Other vegetables	"	n.a.	47.7	41.0	38.0	35.8	35.4
Total vegetables	"	n.a.	285.9	259.5	266.5	244.0	243.0
Grain products—							
Flour (including wheatmeal for baking and sharps)	"	187.1	201.9	181.5	166.6	172.5	168.3
Breakfast foods	"	10.6	13.4	13.5	13.7	14.6	14.1
Rice (milled)	"	4.0	0.9	3.7	3.7	3.7	3.7
Tapioca, sago, etc.	"	1.2	0.7	0.3	0.2	0.2	0.2
Pearl barley	"	1.0	0.5	0.4	0.4	0.3	0.3
Edible starch (cornflour)	"	1.4	1.4	0.6	n.a.	n.a.	n.a.
Total grain products	"	205.3	218.8	200.0	184.6	191.3	186.6
Beverages—							
Tea	"	6.9	6.5	6.0	5.8	5.7	5.9
Coffee(d)	"	0.6	1.0	1.3	2.2	2.2	2.5
Beer	gallons	11.7	16.9	22.7	22.7	23.5	24.2
Wine	"	0.6	1.3	1.1	1.2	1.2	1.2
Spirits	pf. gals.	0.2	0.3	0.3	0.3	0.3	0.4

(a) Not comparable with data prior to 1960-61, in which year the average weight of an egg was altered in calculations from 1.75 oz. to 2 oz. (b) Includes fresh equivalent of manufactured products. (c) Probably understated owing to lack of complete data. (d) Coffee and coffee products in terms of pure processed whole or ground coffee.

Level of nutrient intake

The table below shows details of the estimated supplies of nutrients available for consumption in Australia during the three years 1962-63 to 1964-65 in comparison with the annual averages for the three-year periods ended 1938-39, 1948-49 and 1958-59. The table has been compiled by the Nutrition Section of the Commonwealth Department of Health and is based on the estimates of the quantity of foodstuffs available for consumption per head of population shown in the preceding table.

**ESTIMATED SUPPLIES OF NUTRIENTS AVAILABLE FOR CONSUMPTION
AUSTRALIA, 1936-37 TO 1964-65
(Per head per day)**

Nutrient	Average three years ended—			1962-63	1963-64	1964-65 P
	1938-39	1948-49	1958-59			
Calories no.	3,117	3,245	3,297	3,258	3,287	3,289
Protein—						
Animal gm.	57.7	57.4	59.6	57.3	61.5	59.7
Vegetable "	30.9	35.3	32.3	31.8	31.4	31.6
Total "	89.6	92.7	91.9	89.1	92.9	91.3
Fat "	133.5	121.7	131.7	131.6	131.7	129.5
Carbohydrate "	377.4	424.8	416.7	408.6	411.9	410.1
Calcium mgm.	642	785	817	861	903	910
Iron "	15.4	15.1	14.0	14.1	14.2	14.0
Vitamin A I.U.	4,905	4,630	4,568	4,173	4,236	4,355
Ascorbic acid mgm.	86	96	89	96	88	94
Thiamine "	1.4	1.5	1.3	1.3	1.3	1.3
Riboflavin "	1.7	1.9	1.8	1.9	2.0	2.0
Niacin "	18.7	17.6	18.6	18.8	18.6	18.2

Retail trade

The statistics in this section relate to retail establishments throughout Australia and the value of retail sales of goods by these establishments.

Information of this nature was first collected in respect of the year ended 30 June 1948 by a full census of all retail establishments. As this was the first census of its type in Australia, its scope and the data sought were the minima consistent with the objective of securing a record of the number of such establishments, their type, their geographical distribution, their aggregate sales of goods, and a simple commodity dissection, together with a record of the value of certain services provided. This census was followed by a second census of all retail establishments trading during the year ended 30 June 1949.

Further censuses were taken in respect of the years ended 30 June 1953 and 1957. In these censuses retailers were asked to furnish more detailed information concerning the dissection of their turnover into commodity groups, and questions were asked about stocks of goods on hand, the number of persons engaged in retail activities, and credit sales. In addition, the 1956-57 census included questions relating to purchases, customers' indebtedness and type of organization.

The most recent census was taken in respect of the year ended 30 June 1962, and results have been published for all States and Australia. With the exception of some modifications to the scope of the collection (*see hereunder*), the 1961-62 census followed the same general principles adopted for the previous census.

In general terms the census covered the retail trading activities of establishments which normally sell goods by retail to the general public from fixed premises (i.e. shops, rooms, kiosks, and yards). Retail activities of wholesalers and manufacturers were included if they sold regularly by retail to the general public. Sales by itinerant vendors (e.g. hawkers, street sellers, etc.) and sales from casual stalls or booths were excluded. Organizations such as clubs and societies making sales to their own members were excluded from the main census collection, but a supplementary collection was made, covering sales by *licensed* clubs.

In general, establishments with retail sales of goods amounting to less than \$1,000 in the census year are not included in the census tabulations. However, some 'service' establishments with retail sales of less than \$1,000, but with takings of \$1,000 or more from repairs, meals or hairdressing were included in the main census collection, and details of these establishments are included in tables in Year Book No. 50, page 1244. The types of establishments in this category are boot repairers, repair-only garages, cafés and restaurants, and hairdressers.

The design of the census is such that particulars of retail sales relate principally to sales to the final consumer of new and second-hand goods generally used for household and personal purposes. For this reason, sales of building materials, farm and industrial machinery and equipment, earth-moving equipment, etc. have been excluded from the censuses. For the same reason,

and also because of difficulties in obtaining reliable and complete reporting, sales of builders' hardware and supplies, business machines and equipment, grain, feed, fertilizer and agricultural supplies, and tractors were excluded from the 1961-62 census. Retail sales of motor vehicles, parts, etc. have been included, whether for industrial, commercial, farm, or private use.

During the period between censuses variations in the value of retail sales have been measured by means of quarterly sample surveys. Annual totals derived from these surveys, adjusted to a basis comparable in scope with the 1961-62 census, and some of the results of the 1961-62 census, are included in this section.

Year Book No. 50, pages 1239-45, contains details of the number of retail establishments, the values of retail sales and of retail stocks, and particulars of hairdressing, boot repairing and motor repairing establishments, restaurants, self-service stores and licensed clubs, for each State and Territory, from the results of the 1961-62 census. Major classifications are by commodity groups and type of business. More complete details are set out in published bulletins of the 1961-62 Census of Retail Establishments. (See page 1155).

Value of retail sales in each commodity group, Australia

The following table shows the value of retail sales of goods in each of the commodity groups specified in the years 1959-60 to 1964-65 on a comparable basis throughout. The figures for the year 1961-62 were obtained from the census, whereas figures for the other years shown are estimates based on sample surveys.

VALUE OF RETAIL SALES: COMMODITY GROUPS, AUSTRALIA(a)
1959-60 TO 1964-65
(£ million)

Commodity group	1959-60	1960-61	1961-62	1962-63	1963-64	1964-65
Groceries	782.0	833.1	858.3	892.0	940.6	1,016.6
Butchers' meat	386.7	421.5	422.3	444.1	466.5	503.4
Other food(b)	670.3	705.0	729.9	764.3	793.3	840.1
<i>Total, food and groceries</i>	<i>1,839.0</i>	<i>1,959.6</i>	<i>2,010.5</i>	<i>2,100.4</i>	<i>2,200.4</i>	<i>2,360.1</i>
Beer, wine and spirits(c)	525.6	538.4	545.9	574.0	591.4	628.0
Clothing and drapery	868.0	901.0	900.0	928.6	1,011.1	1,069.6
Footwear	144.4	153.4	154.7	162.2	171.1	177.4
Hardware, china and glassware(d)	141.1	145.2	146.0	154.8	154.0	163.8
Electrical goods(e)	373.9	354.5	348.0	366.5	386.8	407.4
Furniture and floor coverings	229.1	234.2	230.1	244.8	270.6	297.3
Chemists' goods	216.1	243.0	265.8	284.1	306.9	334.5
Newspapers, books and stationery	155.4	160.1	166.4	172.6	191.0	202.6
Other goods(f)	452.7	483.9	489.7	518.2	553.1	593.1
<i>Total (excluding motor vehicles)</i>	<i>4,945.3</i>	<i>5,173.3</i>	<i>5,257.1</i>	<i>5,506.2</i>	<i>5,836.4</i>	<i>6,233.8</i>
Motor vehicles, parts, petrol, etc.(g)	1,654.7	1,649.7	1,603.2	1,981.8	2,169.7	2,300.9

(a) Excludes Northern Territory and Australian Capital Territory. (b) Includes fresh fruit and vegetables, confectionery, soft drinks, ice cream, cakes, pastry, cooked provisions, fish, etc., but excludes some delivered milk and bread. (c) Excludes sales made by licensed clubs. (d) Excludes basic building materials, builders' hardware and supplies such as tools of trade, paint, etc. (e) Includes radios, television and accessories, musical instruments, domestic refrigerators, etc. (f) Includes tobacco, cigarettes, etc., jewellery, sporting goods, etc. but excludes grain and produce and business machines. (g) Includes new and used motor vehicles, parts, petrol, etc. but excludes tractors, farm machinery and implements, earth-moving equipment, etc.

Interstate trade

Prior to the federation of the Australian Colonies (now States) each Colony published statistics of its trade with the other Colonies. A similar record was continued by the Commonwealth Government under the provisions of the Constitution (section 93). On the expiry of the 'book-keeping' period these records were discontinued as from 13 September 1910, and the last published statements were for the year 1909. Later, the Governments of Western Australia and Tasmania revived the records, and relevant statistics are available again for those States. A detailed collection for Queensland was re-introduced from July 1953.

At the Conference of Statisticians held in January 1928 it was resolved that efforts should be made in other States to record the interstate movement of certain principal commodities. Complete interstate trade statistics are now published in detail for Queensland, Western Australia and Tasmania by the Deputy Commonwealth Statisticians in those States, and incomplete statistics, relating mainly to trade with Western Australia and Tasmania, by the Deputy Commonwealth Statisticians in the remaining States.

Statistical organization in Australia

Information about the early development of Australian statistics, the creation of the Commonwealth Bureau of Census and Statistics and the integration of Commonwealth and State statistical services may be found in Year Book No. 51, pages 1247-8 and in earlier issues.

The Australian statistical organization and its functions

The Commonwealth Bureau of Census and Statistics consists of the Central Office, located in Canberra, and the six State Offices each under the control of a Deputy Commonwealth Statistician. The Central Office is responsible for the overall planning and direction of the Bureau's work and for the collection, compilation and publication of statistics relating to (i) Australia and (ii) the States as components of Australian totals. The State Offices are responsible for providing statistics for both State and Commonwealth requirements. Collection activities are largely concentrated in the State Offices, which also engage in the compilation and publication of statistics on a State basis, together with intra-State analysis by divisions, local government areas, geographical areas, etc.

The Bureau produces statistics relating to all aspects of the economy and social condition of Australia—population, employment, primary and secondary industries, national accounts, public and private finance, retail and wholesale trade, overseas transactions, and transport and communication.

Research into the theory and practice of sampling, data processing, population projections, price and quantum indexes, seasonal adjustment, classification systems, and other methodological aspects is conducted on a continuing basis. Pilot input-output tables for 1958-59 have been compiled, and work is continuing on a comprehensive table for a more recent year. The extension of the scope of the Bureau's statistics and the integration of existing statistical collections so as to place them on a co-ordinated and mutually exclusive basis are other important aspects of research and development work.

The economic interpretation of statistics and the use of models in economic analysis and forecasting is the responsibility of policy-making departments (including the Department of the Treasury and the Department of Trade and Industry). The Bureau provides these Departments with statistical information and expert statistical and methodological advice.

At the end of June 1966 the staff of the Bureau in its Central Office and six State Offices, numbered approximately two thousand. About half of this number were employed in the Central Office.

Nature of the Central Office of the Commonwealth Bureau of Census and Statistics

The Central Office of the Bureau is organized functionally into Sectors (*italic type*) and Divisions (*roman type*) dealing with specific fields of statistics or providing services for the Bureau as a whole. The organizational patterns of the State Offices are broadly similar, although local requirements have naturally given rise to differences in detail.

Population Census

Demography and Employment. Demography; Population Research; Employment and Field Surveys

Prices and Labour

Production, Distribution and Development. Primary Industry; Secondary Industry; Internal Trade

Finance and Oversea Transactions. Oversea Transactions; Private Finance; Classification and Integration

National Accounts. National Income and Expenditure; Public Finance; Inter-industry Accounts

Sampling and Methodology. Sampling; Methodology and Mathematical Research

Automatic Data Processing. Systems Operations; Applications; Mechanical Tabulation

Services. Establishments and Finance; Publications; Secretariat

The work of each Division is supervised by a Director. Each Director in turn is responsible to an Assistant Statistician whose principal function is to co-ordinate and direct the operations of several Divisions.

Recruitment of statisticians

The demand by the Bureau for professionally qualified statisticians (*i.e.* graduates) is met in three principal ways. Firstly, the conditions under which persons are recruited to the Commonwealth Public Service ensure that the majority of junior appointees are qualified to matriculate, and the Bureau encourages these recruits in a variety of ways (*e.g.* free study time, payment of university fees, etc.) to pursue an appropriate university degree course on a part-time basis. A



PLATE 65

Central Office, Commonwealth Bureau of Census and Statistics, Canberra, A.C.T.



PLATE 66

Computer installation, Commonwealth Bureau of Census and Statistics, Canberra, A.C.T.

Photograph by courtesy of Australian News and Information Bureau

substantial number of the professional statisticians have, in fact, acquired their qualifications in this way. Secondly, the Bureau awards to high level matriculant students statistics cadetships, of four years duration, tenable at an Australian university and leading to an honours degree in economics, statistics and/or mathematics. The cadetship scheme also provides for one- and two-year cadetships for undergraduates who have demonstrated their ability to succeed with an appropriate university course. These undergraduate cadetships also lead to an honours degree in economics, statistics and/or mathematics. The third way in which the Bureau acquires professionally qualified staff is by direct recruitment of graduates who have had no attachment to the Bureau prior to completing their university degrees. Recruits from this source are predominantly the product of Australian universities, but in recent years a substantial number of overseas graduates, principally from United Kingdom universities, have joined the Bureau's staff.

Mechanical and electronic equipment

The Bureau possesses considerable experience in the use of mechanical equipment for data processing, having first installed punched-card machinery in 1921. It has recently installed a large scale high-speed digital computer network which is progressively superseding most of the existing mechanical tabulation equipment. The computer network comprises Control Data 3600 and 3300 computers in Canberra, 3200 and 160-A computers in both Sydney and Melbourne and 3200 computers in the other three mainland States with a full complement of peripheral devices including twelve type 607 magnetic tape units. The computers are used to perform a wide range of accounting and administrative work for Government departments (notably the Department of the Treasury) in addition to normal statistical functions.

Relation of the Bureau to other Commonwealth Departments

The role of the Commonwealth Bureau of Census and Statistics relative to the compilation of statistics in other Commonwealth Departments is outlined in Year Book No. 51, page 1248.

Statistical and other official publications of Australia

The official statistical publications of Australia may be divided bibliographically into two main divisions, namely: (i) Commonwealth publications dealing both individually and collectively with the several States of Australia; and (ii) State publications dealing with individual States only. Commonwealth publications containing statistics may be grouped under two heads, namely: (i) publications issued by the Commonwealth Statistician; and (ii) Parliamentary and Departmental Reports and Papers. State publications may similarly be grouped into publications issued by the Deputy Commonwealth Statistician in each State and State Parliamentary and Departmental Reports and Papers. The statistics contained in the second group in each case are in the main incidental to the primary purpose of the particular report or paper.

Publications issued by the Commonwealth Statistician

Principal statistical publications. The following is a list of the principal statistical publications issued from the Central Office of the Commonwealth Bureau of Census and Statistics since its inauguration.

Australian Capital Territory Statistical Summary. Annually, 1963 to 1966.

Balance of Payments, Australia. Statements Nos. 1 to 3, 1928-29 to 1951-52.

* *Banking and Currency.* Bulletin, annually, 1961-62 and 1962-63 (first issue) to 1964-65.

† *Causes of Death.* Bulletin, annually; 1963 and 1964.

Census (1911) Results. Bulletins. Vols. I (Statistician's Report), II and III, with Appendix *Mathematical Theory of Population.*

Census (1921) Results. Bulletins. Nos. 1 to 26. Parts I to XVI, forming Vol. I, and Parts XVII to XXIX (Part XXVII, Life Tables), forming, with the Statistician's Report, Vol. II.

Census (1933) Results. Bulletins. Nos. 1 to 25. Parts I to XIV, forming Vol. I, Parts XV to XXVIII, forming Vol. II, and Parts XXIX to XXXVII, forming, with the Statistician's Report and Australian Life Tables, 1932-1934, Vol. III.

Census (1947) Results. Bulletins. Nos. 1 to 25. Parts I to XVI, forming Vol. I, Parts XVII to XIX, forming Vol. II, and Parts XX to XXVIII, forming with the Statistician's Report and Australian Life Tables, 1946-1948, Vol. III.

Census (1954) Results. Bulletins. Nos. 1 to 3. Vols. I to VI, comprising respectively Parts I to V for each State; Vol. VII, comprising Parts I to V for the Australian Territories; Vol. VIII, comprising Parts I to III for Australia, Australian Life Tables, 1953-1955, and the Statistician's Report.

* Previously included in Finance, Part I.

† Previously included in Demography.

- Census (1961) Results*. Vols. I to VI, comprising respectively Parts I to V for each State; Vol. VII, comprising Parts I to V for the Australian Territories; and Vol. VIII, comprising Parts I to III for Australia, Australian Life Tables, 1960-1962, and the Statistician's Report. The complete series has not yet been issued; for publications already issued see back pages of this volume.
- * *Conference of British Commonwealth Statisticians, 1951, Report of Proceedings*.
- * *Dairying Industry* (formerly *Summary of Dairying Industry*). Statistical Bulletin, monthly and half-yearly; first issue, September 1937.
- Demography*. Bulletin, annually, 1911 to 1964. Commencing 1963, excludes details of causes of death, see *Causes of Death*.
- * *Digest of Current Economic Statistics*. Monthly from August 1959 onward.
- * *Export Commodity Classification, Australian*. 1966-67 (and subsequent sectional revisions). *Exports, Australian*. Annually, 1958-59 to 1965-66.
- * *Factories, Principal Statistics, Summary*. Annually, 1948-49 to 1964-65.
- Finance*. Bulletin, 1907 to 1960-61. Commencing 1955-56, issued in two parts—Part I, Public and Private Finance; Part II, Commonwealth Taxation. Commencing 1961-62, issued as five separate bulletins, see *Banking, Finance (2), Insurance, and Taxation*.
- ** *Finance, Commonwealth*. Bulletin, annually, 1961-62 and 1962-63 (first issue) to 1965-66.
- ** *Finance, State, Territory and Local Government Authorities', and Government Securities*. Bulletin, annually, 1961-62 and 1962-63 (first issue) to 1964-65.
- * *Food Production and the Apparent Consumption of Foodstuffs and Nutrients in Australia, Report on*. Statistical Bulletin, half-yearly, 1946-47 to 1947-48; annually, 1948-49 to 1964-65.
- * *Fruit Growing Industry* (formerly *Summary of Fruit Growing Industry*). Statistical Bulletin, annually, 1944-45 to 1964-65.
- * *Import Commodity Classification, Australia*. 1965-66 (and subsequent sectional revisions). *Imports Cleared for Home Consumption*. Annually, 1950-51 to 1965-66.
- ** *Insurance and Other Private Finance (other than Banking and Currency)*. Bulletin, annually, 1961-62 and 1962-63 (first issue) to 1964-65.
- Labour and Industrial Statistics*. Memoranda and Reports, various, to 1922.
- Labour Report*. 1913 to 1964.
- Life Tables, Australian*, 1901-1910. *Australian Joint Life Tables*, 1901-1910.
- Life Tables, Australian*, 1920-1922.
- Life Tables, Australian*, 1932-1934. *Australian Joint Life Tables*, 1932-1934.
- Life Tables, Australian*, 1946-1948.
- Life Tables, Australian*, 1953-1955.
- Life Tables, Australian*, 1960-1962.
- * *Livestock Numbers* (formerly *Summary of Livestock Statistics*). Statistical Bulletins, annually, 1943 to 1965.
- Local Government in Australia*. July 1919.
- Manufacturing Industries*. Bulletins on Individual Industries, annually, 1936-37 to 1939-40, 1940-41 (issue incomplete) and 1944-45 to 1964-65.†
- Manufacturing Industry*. Bulletin, annually, first issue, 1963-64.
- Manufacturing Commodities*. Bulletin, annually, first issue, 1963-64 (in preparation).
- ‡ *Mineral Industry, The Australian* (formerly *Minerals and Metals Bulletin*). Part 2—*Quarterly Statistics* of a quarterly bulletin issued jointly with the Bureau of Mineral Resources.
- Monthly Review of Business Statistics*. October 1937 onward.
- Motor Vehicles, Census of, 31st December, 1955*. Bulletins Nos. 1 to 8.
- Motor Vehicles, Census of, 31st December, 1962*. Bulletins Nos. 1 to 9.
- Motor Vehicles, Survey of (1947-48), Results*. Bulletins Nos. 1 to 7.
- National Accounts, Australian (National Income and Expenditure)*, 1948-49 to 1961-62, first issue, mimeographed*, to 1964-65.
- § *Non-Rural Primary Industries and Value of Production*, Bulletin, annually, first issue 1963-64.
- Northern Territory Statistical Summary*. Annually, 1960 to 1966.
- * *Occupation Survey (1945) Results*. Detailed tables.
- Official Year Book of the Commonwealth of Australia*. 1907 to present issue (No. 52). Issues Nos. 40 to 51 also published in parts.
- Pocket Compendium of Australian Statistics* (formerly *Statistical Digest*). 1913, 1914, 1916 and 1918 to 1966, annually.
- Population and Vital Statistics*. Bulletins and Reports, various, 1906-1910.
- Primary Industries*. Bulletins, annually, 1950-51 to 1961-62 in two parts—Part I, Rural Industries; Part II, Non-rural Industries and Value of Production. Commencing 1962-63, issued as two separate Bulletins, see *Rural Industries* and *Non-rural Primary Industries and Value of Production*.
- Primary Industries, Australian*. Report prepared for the Empire Producers Conference, Sydney, March 1938.

- Production*. Bulletin, annually, 1906 to 1949–50. From 1936–37 to 1949–50 issued in two parts—Part I, Secondary Industries; Part II, Primary Industries (including Total Recorded Production); thereafter separate Bulletins (see *Primary Industries* and *Secondary Industries*).
- Professional Papers*. Various. A full list appears in Official Year Book No. 13, page 3.
- * *Publications of the Commonwealth Bureau of Census and Statistics*. Annually (1964 to 1966 printed).
- Quarterly Summary of Australian Statistics* (replaced *Monthly Summary of Australian Statistics*). December 1917 onward.
- * *Retail Establishments, Census of (1947–48), Results*. Bulletins, Nos. 1 to 7.
- * *Retail Establishments, Census of (1948–49), Results*. Bulletins, Nos. 1 to 7.
- * *Retail Establishments, Census of (1952–53), Results*. Bulletins, Nos. 1 to 14.
- Retail Establishments, Census of (1956–57), Results*. Bulletins, Nos. 1 to 8 (mimeographed*) and 9 to 15 (printed).
- Retail Establishments and Other Services, Census of (1961–62), Results*. Bulletins Nos. 1 to 7 (printed) and 8 and 9 (mimeographed*).
- * *Rural Holdings, Classification by Size and Type of Activity, 1959–60*. Bulletins, Nos. 1 to 7.
- Rural Holdings, Size Classification of, 1955–56*. Bulletins Nos. 1 to 7.
- †† *Rural Industries*. Bulletin, annually, 1962–63 to 1963–64.
- * *Rural Land Use and Crop Production* (formerly *Summary of Crop Statistics*). Statistical Bulletin, annually, 1943–44 to 1964–65.
- Secondary Industries*. Bulletin, annually, 1950–51 to 1962–63 (commencing 1960–61 issued in two parts—Part I, Factory and Building Operations; Part II, Materials Used and Articles Produced in Factories). Commencing 1963–64 issued as separate bulletins, see *Manufacturing Industry* and *Manufacturing Commodities*.
- Social Insurance*. Report to the Hon. the Minister for Trade and Customs, 1910.
- Social Statistics*. Bulletin, 1907 to 1915 annually, and 1918.
- Superannuation for the Commonwealth Public Service*. Report to the Hon. the Minister for Home Affairs, 1910.
- †† *Taxation Assessments, Commonwealth*. Annually, 1961–62 to 1964–65.
- Trade, Oversea*. Bulletin, annually, 1906 to 1965–66.
- * *Trade, Oversea*. Preliminary Bulletin, annually, 1952–53 to 1965–66, in two parts—Part 1, Exports; Part 2, Imports. (See also *Exports, Australian* and *Imports Cleared for Home Consumption*.)
- Transport and Communication*. Bulletin, 1906, 1908 to 1916 annually, 1919 to 1930 annually and 1932 to 1964–65 annually.
- Wealth*. The Private Wealth of Australia and its Growth as ascertained by various methods, together with a Report on the War Census in 1915.
- * *Wheat Industry* (formerly *Summary of the Wheat Situation*). Statistical Bulletin, periodically; first issue, July 1936.
- * *Wool Production and Utilization*. Bulletin, annually, 1952–53 to 1964–65.

The foregoing list includes all the printed publications issued from the Bureau and certain more important mimeographed publications issued for the most part annually. Minor changes in the titles of several publications have not been referred to above. Copies of a number of these publications, particularly earlier issues, are not available.

Other statistical publications. Other mimeographed statements are distributed by the Commonwealth Statistician and deal with a wide variety of subjects, as follows.

Triennially. Tractors on Rural Holdings.

Annually. Agricultural Statistics (Preliminary); Australian National Accounts—Gross National Product at Current and Constant Prices (No. 1), Personal Income, by States (No. 2), Gross National Product at Factor Cost, by Industry (No. 3) (Preliminary Statements); Bee Farming; Consumption of Tea and Coffee; Factories, Principal Statistics of, by Class of Industry; Factory Products, Principal; Factory Production, Indexes of; Factory Production, Packaging and

* Distributed by the Commonwealth Statistician—for methods of obtaining other publications still in print see back pages of this volume.

† The series for 1964–65 comprises: Nos. 1. Cement and Cement Goods, 2. Bricks, Tiles, Pottery and Earthenware, 3. Chemicals, Drugs and Medicines, 4. White Lead, Paints and Varnish, 5. Chemical Fertilizers, 6. Soap and Candles, 7. Basic Metal Industries, 8. Metal Fabricating Industries, 9. Motor Vehicles and Cycles, 10. Cotton Mills, 11. Woollen Mills, 12. Rope and Cordage, 13. Tanneries, 14. Boots and Shoes, 15. Clothing (including Hosiery and Knitted Goods), 16. Flour and Other Grain Mills, 17. Biscuits, 18. Confectionery, 19. Jam, Fruit, Vegetables, Pickles, Sauces, Condiments, etc., 20. Bacon Curing, 21. Butter, Cheese and Condensed, Concentrated, etc., Milk, 22. Aerated Waters and Cordials, 23. Meat and Fish Preserving, 24. Breweries, 25. Wineries and Distilleries, 26. Tobacco, Cigars and Cigarettes, 27. Sawmilling, 28. Pulp and Paper Making, 29. Rubber Works, 30. Brooms and Brushes, 31. Electric Light and Power Works, 32. Gas Works, 33. Plastic Moulding and Products, 34. Leather Goods (including Saddlery and Belting), 35. Printing and Stationery.

‡ Copies available from the Department of National Development in each capital city (\$1 each).

§ Previously Primary Industries, Part II.

* Previously included in Finance, Part I.

†† Previously Primary Industries, Part I.

†† Previously Finance, Part II.

Associated Items; Factory Statistics, Australian Capital Territory; Factory Statistics, Northern Territory; Factory Statistics (Preliminary); Farm Machinery on Rural Holdings; Finance Companies; Fire Marine and General Insurance; Fisheries (formerly Fishing and Whaling—also Preliminary); Fruit Statistics (Preliminary); Government Pension and Superannuation Schemes; Livestock Statistics (Preliminary); Minerals and Mineral Products; Mining and Quarrying (also Preliminary); Oversea Investment; Oversea Investment in Companies in Australia (Preliminary); Registered Building Societies; Registrations of New Motor Vehicles; Rural Statistics of the Australian Capital Territory; Survey of Private Pension and Retiring Allowance Schemes; Survey of Retail Establishments, Australian Capital Territory; Survey of Retail Establishments, Northern Territory; Survey of Selected Large Private Pension Funds; Commonwealth, State and Territory Taxation Collections; Trade of Australia with Eastern Countries; University Statistics (also Preliminary); Value of Primary Production (Preliminary); Value of Production and Indexes of Price and Quantum of Farm Production; Wholesale Sales and Stocks of Wine and Brandy; Wool Production (Preliminary).

Half-yearly. Balance of Payments; Labour Turnover; Trade of Australia with the United Kingdom—no longer published separately, included in quarterly publication *Overseas Trade*—Major Groups of Countries; Minimum Rates of Wage and Prescribed Hours of Work—Adult Male and Adult Female Occupations, Sydney and Melbourne.

Quarterly. Aerial Agriculture; Average Retail Prices of Food and Grocery Items; Balance of Payments; Building; Building—Australian Capital Territory; Building—Northern Territory; Building—Number of New Houses and Flats (Preliminary); Capital and Maintenance Expenditure by Private Businesses in Australia; Capital Expenditure by Private Businesses in Australia (Preliminary); Consumer Price Index; Industrial Disputes; Instalment Credit for Retail Sales; National Income and Expenditure; New Agricultural Machinery; New Capital Raisings by Companies in Australia; New Capital Raisings by Companies in Australia (Preliminary); New Tractors; Oversea Arrivals and Departures; Oversea Trade with Major Groups of Countries; Retail Sales of Goods (also Preliminary); Road Traffic Accidents; Unit Trusts, Land Trusts and Mutual Funds; Wholesale Prices—Price Index of Electric Installation Materials.

Monthly. Banking (General) (also Preliminary); Building Approvals; Employment and Unemployment; Exports of Wool; Export Price Index; Finance Companies; Gold Mining Industry; Imports of Assembled New Passenger Motor Cars (Other than Buses or Special Vehicles); Instalment Credit for Retail Sales (Preliminary); Life Insurance; Meat Industry; Minerals and Mineral Products; Oversea Arrivals and Departures (Preliminary); Overseas Trade (also Preliminary); Overseas Trade, Imports by Commodity Divisions; Production Statistics (also Preliminary); Production Summaries*; Registrations of New Motor Vehicles (also Preliminary); Retail Sales of Goods (Provisional); Savings Banks (also Preliminary); Wage and Salary Earners in Civilian Employment (Preliminary); Wage Rates and Earnings; Wholesale Price (Basic Materials and Foodstuffs) Index; Publications issued by Commonwealth Bureau of Census and Statistics.

Periodically. Demographic Review (separate issues cover population and vital statistics (quarterly), births, deaths and marriages (all annual)); Social Statistics, including Schools, Universities, Hospitals (all annual) and Divorces (annual and quarterly).

Occasional publications. In addition to the publications listed on pages 1153–6, most of which are issued regularly, there have been a number of statements issued by this Bureau which contain the results of special surveys or new statistical series and descriptions thereof. The more recent of these are listed below.

Special Business Survey No. 16. Incidence of Industrial Awards, Determinations and Agreements, May 1963; Minimum Wage Rates, January 1960 to June 1963; Wage and Salary Earners in Employment, June 1954 to June 1961; Wage and Salary Earners in Employment, June 1961 to June 1965; Projections of the Population of Australia (1966 to 1986); Survey of Private

* The current series comprises: Nos. 2. Chemicals, etc., 3. Plastic and Synthetic Resins and Plasticisers, 4. Paints and Other Surface Coatings, 6. Soaps, Detergents and Glycerine, 7. Internal Combustion Engines, 8. Lawn Mowers, 9. Electric Appliances, 10. Motor Bodies, Trailers, etc., 11. Pedal Cycles, 12. Meters, 13. Building Fittings, 14. Cotton Goods, 15. Wool-scouring, Carbonizing and Fellmongering, 16. Wool Textile Industry, 17. Wool Weaving, 18. Hosiery, 19. Shirts, Cardigans, Nightwear, Underclothing, etc., 20. Cellulosic and Synthetic Fibre, Tops, Yarns and Woven Fabrics, 21. Paper, Wood Pulp and Adhesive Tapes, 22. Floor Coverings, 23. Electric Motors, 24. Men's, Youths' and Boys' Outer Clothing, 25. Foundation Garments, 27. Gloves; Slide Zip Fasteners, 28. Footwear (excluding Sandshoes, Goloshes, and Gumboots, etc., of Rubber), 29. Biscuits, Ice Cream, Cocoa, Confectionery, 30. Storage Batteries, 31. Assembly of Motor Vehicle Chassis, 32. Perambulators, Pushers and Strollers, 33. Motor Vehicles, 34. Radio, etc., Television Sets and Cabinets, 35. Mattresses, 36. Preserved Milk Products, 38. Canned Fish, 39. Jams and Preserved Fruit and Vegetables, 40. Cereal Products, 41. Margarine and Other Edible Processed Fats, 42. Malt and Beer, 43. Stock and Poultry Meals (Other than Cereal), 45. Phonograph Records, 47. Aerated Waters, Cordials and Syrups, and Concentrated Cordial Extract, 48. Sports Goods, 49. Building Materials, 50. Electrodes for Manual Welding, 51. Hides and Skins used for Tanning, 52. Electrical Power Transformers, Chokes and Ballasts, 53. Plastics Film, Sheet and Coated Materials, 55. Butter and Cheese, 56. Canned Meat, 58. Steel Wire and Wire Products, 59. Non-ferrous Rolled, Extruded and Drawn Products.

Pension and Retiring Allowance Schemes, 1962-63; Surveys of Weekly Earnings and Hours, October 1962, October 1963 and October 1964; Survey of Weekly Earnings, October 1965; Mining and Quarrying, Statistical Summary (1952-1964); Minimum Wage Rates, March 1939 to June 1965.

Information on current Bureau publications. Further information on current publications of the Commonwealth Bureau of Census and Statistics is contained in *Publications of the Commonwealth Bureau of Census and Statistics*, April 1966, available free on request from the Commonwealth Statistician, Canberra. This contains a list of all Bureau publications and also a subject index to show the central office publications in which information on the various subjects dealt with by the Bureau is to be found. The information on issues in this publication is supplemented in monthly statements.

Commonwealth and State Parliamentary and Departmental Reports and Papers

No comprehensive list of current publications of this nature is available, but the National Library of Australia issues an annual publication *Australian Government Publications*, a list of official publications of the Commonwealth, States and Territories, compiled from records of material received by the Library during the year.

The Publications Branch of the Commonwealth Government Printing Office, Canberra, issues a monthly publication *Commonwealth Publications* and at irregular intervals *Commonwealth Publications Consolidated List*. These publications list Commonwealth publications currently becoming available or in stock, showing the titles and prices of Parliamentary Papers, Parliamentary Debates (Hansard), records of Parliamentary proceedings, Acts, Statutory Rules, Ordinances, and departmental bulletins and reports issued annually or irregularly.

The National Library of Australia issues annually a publication *Australian Books*, its aim being to provide an authoritative current reference and reading list of books dealing with Australia or of Australian authorship, wherever published. The list is comprehensive and is classified broadly under the following subject headings: general and descriptive: Commonwealth territories; history; biography; political history; military and naval history; philosophy; religion; education; social conditions; economics and economic history; industrial relations; industries, resources, trade and communications; constitution and law; international relations; administration; science and technology; natural history; ethnology; home economics; art, architecture, music and theatre; sport; literature and languages; poetry; drama and essays; fiction, children's books; directories, indexes and bibliographies. This list was included in issues of the Year Book prior to No. 49 (see No. 48, page 1166), but considerations of space preclude the inclusion of the latest list (1965) in this issue. See page 624 of the chapter Education, Cultural Activities and Research for further information concerning the National Library's publicizing of Australian publications.

Publications issued by the Deputy Commonwealth Statisticians

A list of the current publications issued by the Deputy Commonwealth Statistician of each State appears in *Publications of the Commonwealth Bureau of Census and Statistics*, April 1966, and this information is supplemented also in the monthly statements mentioned above.

TRAVEL AND TOURISM*

This article outlines the history and growth of travel and the structure of tourist organizations in Australia. It presents summaries of available statistics of overseas and internal travel by various means, provides some indications of tourist spending patterns and accommodation, and refers to research, training and other matters related to tourism. A selected bibliography at the end of the article provides references to articles, reports, etc. on, or relating to, tourism in Australia.

INTRODUCTION

Travel and tourism, whether domestic or international, are rapidly growing activities in Australia as well as in many overseas countries. The essential part of *travel* is transportation, but *tourism* comprehends, in addition, accommodation and the other facilities and attractions provided as the result of such travel, i.e. it relates to the activities of *tourists*.

The travel industry may be regarded as a service industry, as 'that part of the national economy which caters for the traveller who is visiting places outside the locality where he resides or works. It is a heterogeneous group, embracing a large variety of trades and industries which have the supplying of travellers' needs as their common function'.

Because of the difficulty of isolating the services provided for travellers and of relating them to travel, it is only recently (at least in Australia) that attempts have been made to consider travel and tourism as a whole. Lack of appropriate statistics, the complexity of the economic transactions which need to be considered, and tardy recognition of the growing importance of this field are reflected in the meagre literature available.

Definitions

The absence of common definitions in the field of international tourism has been a matter of concern to national and international organizations for many years, particularly to those engaged in research work involving comparative studies. However, international organizations such as the International Monetary Fund, the Statistical Commission of the United Nations and the International Union of Official Travel Organizations are now working towards the adoption of standard terms. The first United Nations Conference on International Travel and Tourism, held in Rome in August-September 1963, suggested that, for statistical purposes, the term 'visitor' should apply to any person visiting a country other than that in which he has his usual place of residence, for any reason other than following an occupation remunerated from within the country visited. This definition would cover *tourists*, i.e. temporary visitors, staying at least twenty-four hours in the country visited, the purpose of whose journey can be classified as relating to leisure (i.e. recreation, on holiday, or for reasons associated with health, study, religion, or sport), for business or for family reasons, on a mission, or for a meeting; and *excursionists*, i.e. temporary visitors staying less than twenty-four hours in the country visited (including travellers on cruises). It was further suggested that statistics should not include travellers who, in the legal sense, do not enter the country (air travellers who do not leave an airport's transit area and similar cases). The Statistical Commission of the United Nations, at its 1965 session, did not accept this definition for recommendation to member countries and suggested that further studies be made. While the Rome definitions may not be satisfactory for international statistical purposes, they serve to indicate broadly the scope of such terms as 'visitor', 'tourist', and 'excursionist'.

For the purposes of this article a *domestic tourist* is similarly defined as any person journeying in Australia and absent from his usual place of residence for twenty-four hours or longer; a distinction is made between interstate tourists (staying at least twenty-four hours in another State) and intrastate tourists. This definition of 'tourist' and 'visitor' is wider than the common interpretation of 'tourist' as a person travelling for pleasure or recreation.

The phrase *the tourist industry* is commonly used in Australia to describe the activities of all establishments which provide goods and services to the person travelling away from home.

* The following article on Travel and Tourism was specially prepared for this issue of the Year Book by Mr. R. D. Piesse, B.A., LL. B. (Melb.), Director of Travel Development, Australian National Travel Association.

The term *visitor plant*, defined as the entire range of tangible and intangible factors which attract or cater for tourists, is used especially in studies of travel development and promotion. While the term is useful to indicate the wide variety of facilities (transport, accommodation, restaurants, shops), attractions (scenic, recreational, historic, cultural), and such intangible factors as climate, organized programmes to enable people to meet people, business opportunities and the like, which all affect the visitor, the concept which this term expresses is not measurable and is thus of limited use in practical studies.

The term *destination area* means a locale with certain characteristics sufficient in themselves to attract travel.

History of travel and tourism in Australia

From colonial days the idea of travel has been more natural to Australians than to people long established at one place. Immigrants, having once broken away from their homes, were prone to continue their search for wealth or security for a while, or, having settled down, to return to the old countries to visit their kin and refresh old memories. The opening of new lands, the establishment of industries and towns and the consequent dispersal of people over Australia created a habit of mobility and enterprise which encouraged Australians to face the hardships of early travel by coach, on horseback or by ship. Even so, the slow and uncomfortable modes of travel and the vast distances separating Australian towns tended to restrict travel to essential journeys for purposes of trade, to pursue an occupation or to settle. This changed somewhat with the advent of rail travel.

The initial emphasis in tourism for purposes of pleasure was strongest on travel to resorts near the main population centres. These included the Blue Mountains in New South Wales and the hill and coast resorts close to Melbourne and other major cities. The existing railway services radiating from these cities, together with the 'feeder' horse-drawn, and later motor, coach transport connecting with the railways, rendered the State Government railway tourist bureaux the main means for selling intrastate, and even some interstate, travel.

After the 1914-18 War in the 1920's, and again after the easing of the effects of the depression of the 1930's, travel for all purposes increased steadily. It continued to be mainly by rail, but also by sea, although the family motor car began in the 1930's to participate in the shorter intrastate traffic. A considerable fleet of passenger ships provided frequent and popular services linking most ports between Fremantle and Cairns. Other services linked Sydney and Melbourne with Tasmanian ports. The winter cruise of those days to Queensland ports could be regarded as the equivalent of today's drive or flight north for a winter holiday at the Gold Coast or a Barrier Reef Island, or today's shorter South Pacific cruises. The first cruises from Australia to New Zealand were organized in the summer of 1934-35, and Australians were travelling to Britain for as low as \$78, tourist class, in the years immediately preceding the 1939-45 War.

In the period following the 1939-45 War the advent of new and improved methods of transportation, combined with rising standards of living and the energetic publicizing of foreign destinations, developed international travel into a mass-movement. New ocean liners shortened travelling time considerably, and travel by car and bus increased in many countries. Most of all, air travel became widely available, faster, safer, and cheaper. The beginning of the jet age in 1960, with larger aeroplanes carrying more than 100 passengers at speeds approximating 600 miles per hour, diminished the world by half in terms of time. Rising standards of living in the post-war period led to greater expenditure on tourism, thus making it more important to the national economy.

Australia has shared in this world-wide expansion of travel, particularly in respect of its domestic tourism. Because of the marked increase in incomes and private car ownership among large sections of the population, greater leisure time, three weeks paid annual holidays (introduced first in New South Wales in 1958) and the introduction of long-service leave, thousands of Australians now travel by road into almost every part of the Commonwealth. This has led to investment in the development of new and improved facilities, especially accommodation, of new resorts at dispersed points around Australia, and to modifications in organization and methods of tourist administration, development and promotion. These activities in turn have had an important influence on matters such as the improvement of highways and the opening up of national parks and foreshores. A recent consequence is the first detailed study and survey of the entire Australian tourist industry, its development and its future potential.

Government interest in tourism and development of State tourist bureaux

Under the Constitution of the Commonwealth the Commonwealth has no direct powers to regulate travel and tourism, except in so far as matters related to freedom of trade and intercourse between States, the publicizing of Australia abroad and promotion of visitor traffic as an external trade activity, and the administration, development and promotion of travel and tourism to and within the Territories of Australia may be involved. Tourism within Australia

thus falls into the residual powers of the State Governments. All States have for many years exercised their rights in respect of domestic travel and tourism, and some at times have extended their activities to promotion abroad.

The operation of travel and tourist bureaux and departments by the States, following the pattern set by New Zealand, evolved from the State railways' booking offices. Because of the emphasis at that stage on railways as the principal means of travel, the provision of rail booking facilities was, in fact, the primary purpose of these bureaux. New South Wales (1906), Victoria, South Australia, and then Tasmania (1915) entered the field early. In 1908 Victoria set up a Government Tourist Bureau which took over the functions of the Victorian Railways Central Booking and Enquiry Section established in 1895. This in turn had its origin in 1888 in the Railways Information Centre created for the International Melbourne Exhibition of that year. In opening the new Government Tourist Bureau in Adelaide in 1908 the then Treasurer of South Australia said that he expected that the development of a tourist traffic would add considerably to the coaching receipts of the railways. Government Tourist Bureaux were established by Western Australia in 1921 and Queensland in 1926.

Government support for, and participation in, the development of tourism grew rapidly in the middle and late 1950's in Victoria and Queensland and the early 1960's in Western Australia and the Northern Territory. Along with the efforts of the domestic airlines and coach tour operators, it began to bring appreciably greater benefits to the tourist industries of these States and the Northern Territory.

Although Australian residents traditionally have been travellers to the United Kingdom and Europe, it was only in the late 1920's that the impetus first arose towards attracting international travellers to Australia and the Commonwealth Government's interest was aroused, largely because of the repeated representations by Australians returning to their homeland and through the vision of a group of business leaders. The promotion of travel to Australia was seen as a means of stimulating development, migration and, by virtue of the currency brought in by visitors, of increasing overseas earnings. The Chairman of Commissioners of the Victorian Railways, Mr. (later Sir) Harold Clapp, who had first-hand knowledge of methods used by various United States railroads to promote travel to resort attractions, initiated similar travel promotion techniques for the Victorian Railways and also urged the development of a national policy for travel promotion.

In consequence of a recommendation by the Development and Migration Commission, the Australian National Travel Association was inaugurated by the Commonwealth Government in 1929 as a national, non-profit organization under the *Companies Act* 1928 of Victoria. The Commonwealth Government authorized an annual contribution of \$4,000 for five years to ANTA, whose initial annual budget was \$35,000. By 1930 Australian publicity and travel promotion offices were established in London and San Francisco. Australia became the first country to establish a tourist promotion office on the west coast of the United States. A few years later Australia established a similar 'first' for the Asian continent when ANTA opened an office in Bombay. Later it opened an office in New Zealand. During its first three-and-a-half years of operation the Association raised \$122,000. By the outbreak of the 1939-45 War its budget was \$106,000, largely because of a special Commonwealth grant of \$42,000 for the San Francisco Exposition.

ORGANIZATION OF TRAVEL AND TOURISM IN AUSTRALIA

Structure, organization and roles of official, semi-official and voluntary associations

The role of the Commonwealth Government

The Commonwealth Government contributes financially and in certain other specialized ways to the promotion of the flow of tourists to Australia. The Minister for Trade is responsible for tourism matters at the Commonwealth level. The Department of Trade and Industry provides publicity in its magazines, assists in the distribution of travel promotional literature, co-operates with ANTA at overseas fairs and displays, and makes its overseas facilities available for tourist promotion. Furthermore, through the Inter-departmental Committee on Publicity Co-ordination, the Commonwealth ensures that, as far as possible, economy of effort and money is observed in respect of the promotional and publicity activities of the various Commonwealth departments and ANTA. The Commonwealth is represented at the annual discussions of the Tourist Ministers' Council (see page 1162).

The Commonwealth is involved also in the following other activities concerned with tourism: Commonwealth Film Unit production from time to time of films which have direct application to the promotion of travel to Australia; Commonwealth financial assistance to organizations for the staging of international conventions in Australia; and through the Snowy Mountains Hydro-Electric Authority as a government instrumentality carrying out tourist promotion and public

relations as well as tour organization work within its statutory region. The policy of the Authority since its inception has been to encourage visits, and hundreds of thousands of visitors have been conducted on tours of the Snowy Scheme.

The Australian National Travel Association (ANTA)

This organization is the national body responsible for the promotion of travel to Australia. The Association makes no bookings or reservations itself, but concentrates on presenting a national image to overseas tourists. It has its Head Office in Melbourne, and branch offices are located in London, New York, San Francisco, Auckland, and Sydney.

ANTA has an Honorary Board of fifteen government representatives (Commonwealth, all State Governments, and government instrumentalities) and sixteen representatives from related industries, such as shipping, airlines, accommodation, motor coach transport, travel agents, Chambers of Commerce and Manufactures, the Australian Automobile Association, the Australian Bankers' Association, retail traders, and other business interests. As well as this balance in representation between government and business interests, Board representation is intended also to keep a balance as far as possible between the major sectors having interests in the travel and tourist industry. Thus the accommodation industry has five representatives (including those of both hotels and motels) and transportation has eight (half of whom represent overseas air and sea passenger carriers). There is also an Executive Committee of the Board to guide the Association's activities.

ANTA's budget in 1965-66 was \$1,021,425, of which \$737,748 (72 per cent) came from the Commonwealth Government and the remainder from State Governments and industry sources. The Commonwealth financial support for ANTA consists of a base grant of \$462,000 and a \$ for \$ subsidy matching contributions received from non-Commonwealth Government sources. The following table sets out the sources of ANTA's revenue and the growth in numbers of members and contributors in recent years.

AUSTRALIAN NATIONAL TRAVEL ASSOCIATION: TOTAL BUDGETS, SOURCES OF REVENUE, MEMBERS AND CONTRIBUTORS, 1961-62 TO 1965-66

Year	Total budget	Commonwealth Government payments		Non-Commonwealth Government payments		Number of ANTA members and contributors
		Grant	Percentage of total budget	State Governments	Other	
	\$	\$		\$	\$	
1961-62 . . .	528,166	410,114	77.6	28,500	89,552	150
1962-63 . . .	680,938	537,388	78.9	28,550	115,000	234
1963-64 . . .	827,582	640,000	77.3	36,000	151,582	280
1964-65 . . .	954,514	700,000	73.3	36,050	218,464	352
1965-66 . . .	1,021,425	737,748	72.2	36,400	247,277	421

The number of Association members and financial contributors has increased 181 per cent in the last five years. A considerable amount of the money ANTA receives from non-Commonwealth Government sources comes from contributions from carrier companies and others for joint promotional projects, such as advertising in overseas journals. The latter was largely responsible for the 13.2 per cent increase in contributions from non-government sources in 1965-66.

ANTA is assisted in policy formation by three advisory committees concerned with Promotions, Research, and Visitor Facilities. Each comprises experts in their respective fields, drawn from a variety of government and private organizations, some within the travel industry and others not directly connected with it.

ANTA funds are spent in advertising and publicity campaigns and in associated promotional activities in overseas countries, particularly in New Zealand, North America, the United Kingdom, and Western Europe. In addition, the Association brings to Australia travel agents, writers, photographers, and other publicists so that they may see at first hand what the country has to offer visitors. The following are some of the activities in which ANTA has been engaged recently.

The launching of the first fully-integrated marketing programme in North America. Entitled '*Destination South Pacific*', it embraces advertising, merchandising, sales promotion, and publicity campaigns. It has been presented during 1965-66, with the help of travel agents, to 50,000 specially selected members of the public regarded as travel prospects for the Pacific area and representative of almost every major city in the United States and Canada. This is a co-operative project with the New Zealand Travel Commission, tourist organizations of South Pacific Islands and carrier companies operating into and through the area.

Advertising campaigns in the United Kingdom and New Zealand, including joint advertising with shipping companies and airlines serving Australia.

The production and supply of more than two million pieces of literature, articles and films on Australia's attractions and visitor facilities, and co-ordinating publications such as *The Australians*. This is a 300-page portrayal in words and pictures of Australia and Australians.

Participation in certain trade fairs and assistance to Australian organizations in order to attract conventions to Australia.

Since 1934 ANTA has published the monthly magazine *Walkabout*, designed to disseminate knowledge of Australia and its way of life. The Association also carries on research and survey work at home and in overseas market areas to assist in guiding its activities.

State and Territory Authorities

The States and internal Territories maintain government tourist organizations. They operate information and reservation offices, earning commissions on transportation and accommodation bookings. They encourage the development of tourist facilities and of local tourist promotion organizations. Their principal objective is to promote interstate and intrastate tourist traffic. Directors of each State and Territory tourist organization, together with a representative of the New Zealand Tourist Department, meet annually at the Australian and New Zealand Government Tourist Conference to formulate joint policies and procedures and discuss matters of mutual interest. ANTA takes part at this Conference in discussions dealing with overseas tourism to Australia. The Tourist Ministers' Council, representative of Commonwealth and State Governments, was formed in 1960 to discuss informally each year policy matters concerning the development of tourism and its problems. The Minister for Trade and Industry is represented at these meetings by the Chairman of the ANTA Board.

The State and Territory tourist organizations have the following main purposes in common.

Administering and managing tourist bureaux for bookings, reservations and supplying information in their capital and provincial centres and, except in the case of the Northern Territory and Canberra Tourist Bureau, in the cities of other States.

Encouraging the development of tourist attractions and facilities, including advice to regional tourist promotion organizations on matters of tourist organization, development, promotion, and publicity.

Publicizing the tourist attractions of, and supplying tourist information about, the State or Territory.

Generally stimulating the flow of tourist traffic to and within the State or Territory.

There are, however, distinctive features in the organization, financing and functions of particular authorities. For instance, the *New South Wales Department of Tourist Activities* operates cave resorts and the Jenolan Caves Hotel, as well as administering State migration matters, grants subsidies to regional tourist organizations to assist in setting up and maintaining local tourist bureaux, and organized Conferences for Representatives of Regional Tourist Organizations in 1964 and 1965.

The *Tourist Development Authority of Victoria* was established under the *Tourist Act* 1958, as an authority consisting of representatives of various State departments such as the Premier's, Lands, Roads, Forests, and Public Works. There is also one representative (the Royal Automobile Club of Victoria) of organizations having an interest in tourism. The Authority's budget is linked to a statutory contribution from the Country Roads Board Fund based initially on a contribution of two per cent of motor registration fees.

The *Queensland Government Tourist Bureau* is administered under the Department of Labour and Industry. Unlike other States, it carries on some sales promotion activities among travel agents abroad, particularly in New Zealand. It also subsidizes regional tourist committee publications, makes special grants for the encouragement of festivals, and in 1964 organized the first Tourist Industry Seminar in Queensland.

The *South Australian Government Publicity and Tourist Bureau*, established in 1908, is administered under the Premier's Department. It is responsible for the administration of immigration to the State, of the National Pleasure Resorts Act, and of government publicity activities generally. It leases a chalet at Wilpena, in the Flinders Ranges, and maintains its own film-making unit.

The *Tourist Development Authority of Western Australia* was created under the *Tourist Act, 1959*, legislation similar to that of Victoria. Local authorities have taken advantage of schemes whereby the Tourist Development Authority, as in Victoria, provides subsidies for approved works. Improved tourist amenities for which assistance has been provided since 1960 by the Authority have cost more than \$1,400,000, of which more than \$800,000 has been provided by the State Government. It also promotes traffic to the State from Singapore and Malaysia.

The *Tasmanian Government Tourist and Immigration Department* was created in 1914. It administers immigration to the State and also the operation of the Accommodation Loans Act Fund. The Department runs its own 'Tasbureau' coach tours and administers three caves resorts.

In the Australian Capital Territory the *Canberra Tourist Bureau* is administered by the Department of the Interior. The Bureau's vote for publicity is spent largely on tourist literature production. The development and maintenance of attractions for visitors to Canberra are the responsibility of the National Capital Development Commission and the Department of the Interior respectively. In October 1965 the Department announced the appointment of a Director of Tourism for the Australian Capital Territory.

The *Northern Territory Tourist Board* was created under a Northern Territory Ordinance in 1962 to develop tourism in and to the Northern Territory. It operates information and booking bureaux in Darwin and Alice Springs, and exercises other functions broadly along the lines of the State tourist bureaux. The Board consists of a Chairman, members of various branches of the Northern Territory Administration, a representative of each major domestic airline, and a representative of elected members of the Northern Territory Legislative Council.

The *Papua and New Guinea Tourist Board* was constituted in August 1966 with twelve members representing various districts and tourist interests in the Territory.

Regional and local bodies

Throughout Australia there is a variety of regional and local tourist bodies, ranging from local government offices and bureaux to voluntary regional, district, highway-league, and chambers of commerce bodies. However, limitations are often imposed on the latter, owing to their voluntary nature and the necessity of making special approaches to their members for funds. There are also some convention bureaux.

In *New South Wales* there is a well-developed network of regional tourist development and publicity organizations, each having a 'community of tourist interest', but whose boundaries correspond to single, or groupings of, local government areas. These regional organizations are eligible for financial assistance grants from the Department of Tourist Activities on certain conditions, one of which is that they maintain tourist information bureaux. The usual annual grant is \$2,000. Many individual cities and towns carry out tourist publicity and promotional activities through other organizations, including chambers of commerce and highway development leagues.

There is a growing number of regional and local tourist promotion organizations in *Victoria*. Although some are also general progress associations (and are so known), most are primarily, or solely, concerned with tourism. Assistance in tourist development projects and the production of tourist folders is provided in approved cases by subsidies from the Tourist Development Authority.

In *Queensland* the growth and activities of local tourist promotion organizations have been quite marked in recent years. Some of the 'travel leagues' and chambers of commerce of individual towns, such as the Surfers' Paradise Chamber of Commerce, also take an active part in publicity and promotion of tourism to and in their town areas. The Gold Coast City Council formed a *Gold Coast Tourist Advisory Board* in 1966 with representatives from private enterprise and the City Council. This is believed to be the first organization of its type wholly set up and appointed by a local government authority in Australia.

A system of subsidies to country tourist bureaux and tourist committees operates in *South Australia*, where, however, individual chambers of commerce also play an active part in tourist publicity in a number of centres.

In *Western Australia* country tourist bureaux carry out district tourist promotion and supply information to tourists. They operate under a system of approved bureaux for the purpose of subsidy payments from the Tourist Development Authority. In 1963-64 eight of these bureaux were operating, most of them in the far south-west of the State.

The *Tasmanian Tourist Council* is a non-government body with a largely advisory and co-ordinating function among private tourist enterprise. As reorganized in September 1964, the Central Council comprises representatives from Northern, Southern, North-western, Eastern, South-eastern, and Midlands Divisions, with the Minister for Agriculture and Tourists and the Tourist Director *ex officio* members. The Council adopted a proposal late in 1965 for the establishment of a tourist advisory service throughout the State to assist visitors. Under this scheme

appointments are made through municipal councils. In July 1966 it launched its 'Operation Tourism' campaign to improve attitudes to, and welcoming arrangements for, tourists and to stimulate community tourist development and beautification schemes.

The *Australian Capital Territory Advisory Tourist Council* is a body made up of representatives of the accommodation industry, Chamber of Commerce, the National Capital Development Commission, and the Director of the Canberra Tourist Bureau. From time to time it makes suggestions and proposals to the Department of the Interior on travel and tourism.

The *Murray Valley Tourist Promotion Council*, which operates under the aegis of the Murray Valley Development League, is another regional publicity body. It is supported by shire councils, business enterprises and private citizens, and covers tourist centres in South Australia, Victoria and New South Wales.

Organisation and development of travel and tourist industry facilities

Transportation

Rail travel. The main trunk route for rail travel extends from Perth in Western Australia through the eastern States to Cairns in Queensland, and several important inland lines serve tourists as well as local residents (e.g. Port Augusta to Alice Springs, Melbourne to Mildura, Sydney to Broken Hill, and Townsville to Mount Isa).

Three factors have helped to improve the standard of travel on major railway lines in recent years.

Firstly, the introduction of new equipment. The appeal of modern passenger trains is directly linked to progressive improvements in air conditioning, smooth-riding bogies and noise insulation. The Victorian Government Railways in 1935 was the first system in Australia to instal air-conditioning plant on a railway carriage. Plans for railway modernization in general had to be laid aside during the 1939-45 War, however, and it was not until the 1950's that Australian railways were able to embark on a rebuilding programme in which air-conditioned carriages were a feature. A notable improvement in train travel was achieved with the introduction of five air-conditioned streamlined trains on the Trans-Australian Express services. New South Wales, for example, has twenty-seven air-conditioned expresses in operation, serving both country districts and interstate capitals.

Secondly, the popularity of the 'Daylight' inter-capital express services between Melbourne and Sydney and of the extended rail tours along the Queensland coastal route to Cairns.

Thirdly, the improvement in convenience and speed due to progress in the railway gauge standardization projects and the change-over to diesel locomotives. The developments since 1962 between Sydney and Melbourne, where the *Southern Aurora* Express provides service in keeping with world standards, will be extended in a few years to standard gauge trans-Australia travel between Sydney and Perth via Broken Hill.

Rail passenger travel in Australia is comparatively cheap, but, except on trains such as the 'name' express trains on certain interstate routes, there has been a decline overall in travel by rail in recent years in favour of other methods of travel, notably by air and by private car.

Air travel. Australians are recognized as one of the most air-minded peoples of the world. Suitable operating distances between major population centres, favourable weather and visibility conditions making for minimal interruptions to schedules, a very high safety record, and Australia's vast area are factors that have assisted in the growth of domestic aviation, while Australia's isolation from other world population centres is basically the reason for the development in air travel between it and other countries.

Significant events in the development of Australia's airlines over the last decade include the introduction in 1954 of the turbo-jet Vickers Viscount four-engined airliners on main domestic routes and of pure jet Boeing 707's in 1959 on most international routes serving Australia; the introduction of the high performance, high passenger-capacity Boeing 727 pure-jet aircraft on the Perth-Brisbane route in late 1964 (thus enabling the air services on most other routes to be increased); and the commencement of the Commonwealth Government's five-year programme of airport development in 1962. The airlines provide scheduled services to more than one hundred principal destinations in Australia.

The rates of growth of domestic passenger traffic in recent years have been high. The growth of air travel has taken place not only on the east coast trunk route services, but also in Western Australia and in services between Australia and the Territory of Papua and New Guinea.

There were eleven international airlines serving Australia in 1965, in addition to the Australian-owned Qantas Empire Airways. The number of overseas air services, capacity and passengers carried have been increasing rapidly in recent years, and seats available on all routes to and from Australia (excluding assisted migrant traffic) increased by 93 per cent from 275,000 in 1962 to 530,000 in 1965. The largest component of this increase is the Tasman traffic which increased by 152 per cent from 107,000 to 270,000.

There has been a marked development in recent years in air tours and 'packaged' (i.e. inclusive-priced) holidays which include air travel, such as extended tours to central and northern Australia, Queensland resorts and Tasmania by airlines and to the outback by private air charter tour operators. The first helicopter service to a tourist resort—to Hayman Island, in the Great Barrier Reef region—commenced in 1965. Major domestic airlines have reported an increase from about 55 in 1964 to more than 95 in 1966 in the number of organized escorted group tours sold. Such 'packaged' tours have assisted in the development of tourism to areas at some distance from the main population centres.

'Rent-a-plane' facilities are now available in many centres in Australia, as are small aircraft for passenger charter flights. There were 208 air charter operators in October 1964. The main operators of tourist charter flights are based in Sydney, the Barrier Reef—Cairns area, Alice Springs, Adelaide, and Hobart.

Sea travel. Local passenger travel by sea has declined since 1945 in Australia as it has elsewhere in the world, and many passenger vessels used for interstate trade before the 1939–45 War have been withdrawn from service and have not been replaced. Now there remain the Western Australian State Shipping Service plying mainly between Fremantle, north-west ports and Darwin, and the Australian National Line's Bass Strait passenger services. Interstate passengers are also carried by permit (*see* page 446) on overseas vessels while in Australian waters. Oversea ships serve the major Australian ports, particularly Sydney, Melbourne, Adelaide, and Fremantle on Europe-Australia-Pacific services, and Brisbane on some voyages to or from south and east Asian destinations. The number of Australia-based cruises in the south Pacific region by such vessels has increased considerably in the last five years or so.

Two passenger-car ferries provide services between Tasmanian ports and the mainland (*see* page 443), and have played an important role in the development of touring in Tasmania. The Sydney-Hobart and northern Tasmanian ports ferry commenced operation in 1965. The Melbourne-Devonport ferry has had consistently high loadings and it has been decided to build a second, larger, passenger-car ferry for this route. This will increase frequency to six services a week in each direction.

Road passenger transport. There are two main types of motor-coach operations—interstate express services and coach sightseeing tours. The low standard of some highways and equipment used has hitherto militated against the popularity of express-coach services in Australia. However, not only have roads been improved, but new and better types of vehicles have been introduced. These have quick acceleration to cruising speed, better hill-climbing capacity, virtually no maintenance delays, and much improved passenger comfort and amenities. Between 1957 and 1965 there has been a saving in time of about five and six hours respectively, about a quarter of the original times, on the Melbourne-Sydney and Sydney-Brisbane journeys of the principal operator. The same operator reports an overall increase of 23 per cent in passengers carried between 1962–63 and 1964–65.

Since the early 1960's there has been a rapid increase also in the popularity of long-distance, economy-type tours in which passengers are responsible for their own camping and cooking arrangements. This development has served to enable many Australians, particularly the more youthful, to see many parts of their country which would have been inaccessible to them before.

Private motor car travel and touring. It is in the field of travel and touring by private car that by far the biggest advance in Australian tourism has occurred in the last decade. Whereas in 1952–53 there were 1.1 million private cars registered, by 1964–65 the number was 2.8 million. Increased annual leave and long-service leave for many have made for greater use of cars for touring holidays. In addition, a family as a unit can travel more economically by private car than by public transport. Membership of automobile clubs increased by 40 per cent between 1961 and 1965. Market research organization surveys taken in recent years have indicated the intention to travel by private car of between three-quarters and nine-tenths of the families surveyed who planned to take their holidays in Australia.

Accommodation

Travel involves not merely the *movement* of people. Development of accommodation facilities goes hand in hand with development of transport, sightseeing, shopping, and entertainment for tourists, and is equally important. The existence of good, well-advertised accommodation can attract tourists as much as any other facility provided and is an essential prerequisite for successful travel development.

Variety and types of accommodation. Until recent years broad distinctions only have been drawn in Australia in classification of accommodation. Firstly, there has always been a primary distinction between licensed and non-licensed (so-called 'private') hotels and, to a degree, this applies also in respect of motel-type accommodations which may be licensed fully or for dining-room service only. Furthermore, there has always been a distinction between the terminal-type hotel (i.e. catering mainly for people who travel for commercial purposes) and the resort-type hotel (i.e. catering for people who travel for holidays, etc.). The advent of motels has introduced a further term, 'transit'. Thus motels in particular are classified either as *terminal* (or destination), *transit* (i.e. located along a highway between main destination points) or *resort* motels.

Since the 1950's a variety of types of accommodation has evolved to cater for varying needs and to suit varying pockets. There are *hotels*; *motor-hotels* (larger, hotel-like establishments, often in main centres, but catering for the needs of the motorist and not emphasizing public space such as lounges); *motels*; *guest-houses*, *chalets* and *lodges* (these barely distinguishable except perhaps by their location); *serviced apartments* or *flats*; *caravan* and *trailer-rental parks*; and *hostels*. There are also many *camping parks* with various facilities and amenities.

The diversification in the types of accommodation offered to the public has come about partly in response to changing attitudes (e.g. increased emphasis on informality, family privacy, etc.) and to cater for travellers in a wider range of income groups. With the expansion of the Australian economy (and consequent increased business travel), the increase in the number of private cars and the improvements to major highways came the introduction, in the mid-1950's, of the motel to Australia. From two or three motels only in 1955, the total has risen to more than 700 throughout Australia. Furthermore, greatly speeded-up inter-capital air services and the use of cars rented at airports favoured the growth of motels at the expense of the majority of hotels, which, in the main, were unable to match the parking facilities and general convenience offered by the former.

Volume of accommodation. There are no precise figures on a uniform basis of rooms or beds available in Australia. In particular, information in respect of unlicensed establishments (which are not necessarily under the same government supervision as licensed establishments) is incomplete. It has been estimated recently that the total number of rooms available for accommodation in Australia approximates 50,000. This estimate is derived from listings in directories of accommodation designed for travellers and does not include accommodation in rented flats (important for holiday makers in many cities and resorts), caravan parks, hostels, and the like. The following table provides estimates of accommodation within three miles of the General Post Office at capital cities in 1964.

CAPITAL CITY ACCOMMODATION(a), 1964

Type of accommodation and facilities	Number of premises	With private bath or shower and toilet		Without private bath or shower and toilet		Total	
		Rooms	Beds	Rooms	Beds	Rooms	Beds
All capital cities—							
All rooms with private bath or shower and toilet—							
Licensed hotels	35	3,346	6,047	..	..	3,346	6,047
Non-licensed hotels, etc. .	20	774	1,561	..	..	774	1,561
Motels	61	2,592	6,166	..	..	2,592	6,166
Some rooms with private bath or shower and toilet—							
Licensed hotels	50	1,018	1,787	1,703	2,433	2,721	4,220
Non-licensed hotels, etc. .	28	831	1,375	1,732	2,619	2,563	3,994
Motels	2	2	5	20	47	22	52
No rooms with private bath or shower and toilet—							
Licensed hotels	148	..	..	2,849	4,318	2,849	4,318
Non-licensed hotels, etc. .	79	..	..	3,895	6,168	3,895	6,168
Total	423	8,563	16,941	10,199	15,585	18,762	32,526
Sydney	83	2,773	5,516	2,988	4,693	5,761	10,209
Melbourne	57	2,168	4,188	2,290	3,267	4,458	7,455
Brisbane	56	894	1,745	1,186	1,797	2,080	3,542
Adelaide	85	1,000	1,854	1,359	2,103	2,359	3,957
Perth	44	584	1,121	1,228	1,875	1,812	2,996
Hobart	72	486	1,069	795	1,235	1,281	2,304
Darwin	9	74	151	106	201	180	352
Canberra	17	584	1,297	247	414	831	1,711
Total	423	8,563	16,941	10,199	15,585	18,762	32,526

(a) Within three miles of the General Post Office.

About one-quarter of the capital city hotel and motel accommodation within three miles of the General Post Office in each of the eight capital cities comprised rooms either newly-built or improved to international standard during the period 1958 to 1964, as the following estimates show.

**NEW AND IMPROVED TO INTERNATIONAL STANDARD
CAPITAL CITY HOTEL AND MOTEL CAPACITY(a)
BUILT 1958 TO 1964**

(Rooms)

City	Hotels	Motels or motor hotels	Total
Sydney	836(b)	616	1,452
Melbourne	621(b)	507	1,128
Brisbane	165	237	402
Adelaide	189(b)	450	639
Perth	298(b)	127	425
Hobart	99(b)	129	228
Darwin	15	22	37
Canberra	175(b)	381	556
Total	2,398	2,469	4,867

(a) Within three miles of General Post Office. (b) Improved to international standard involving some reduction in previous room capacity.

Within nine miles of the General Post Office, available accommodation in 1964 amounted to 23,902 rooms in 644 establishments. Of these rooms, 11,030 had a private bath or shower and toilet.

Conventions and conferences and facilities. Conventions and conferences have increased greatly, keeping pace with the growing facilities for holding them. These include the necessity in many cases for simultaneous multi-lingual translation facilities and large hotels or other venues with a complex of convention meeting rooms. The favoured centres appear to be Sydney and Melbourne, the Gold Coast, Canberra, Adelaide, and Brisbane. Spring and autumn, with peaks in October and May, appear to be the most favoured times of the year for holding conferences, except for Canberra, which is the venue for a number of summer conferences, and the Gold Coast, which is busy in winter also.

Until about 1961, following the introduction of jet flights, it was fairly rare for Australia to be chosen as the venue for international conferences except those of Pacific or regional organizations. There were some half dozen international meetings of note in that year and double that number in 1962, a year which included large gatherings such as the World Power Conference and Associated Country Women of the World, both held in Melbourne, and the World Poultry Congress, held in Sydney. The World Timber Congress (1963), the International Mining and Metallurgy Conference (1964), Pacific Area Travel Association Conference (1964), and the World Congress of Junior Chambers International (1965) are some international conventions held in Australia in recent years. The lack of a large, specialized conference building in Canberra has prevented the National Capital from being a venue for bigger national and international conferences. However, in 1964-65 about eighty national conferences, involving about 7,000 delegates, were held there.

Although Australia has demonstrated its ability to handle international conventions, the limitations imposed by distance and the venue requirements of large international bodies remain problems in developing this important aspect of international travel.

Financing accommodation development. Investment in motel companies over the last five years or so has increased rapidly. Shareholders' capital in listed motel companies totalled \$2.6 million in 1960, \$7.8 million in 1961, \$13.0 million in 1962, and \$14.2 million in 1963. However, construction of hotels of a primarily residential nature has, in general, been inactive. Since 1960 there have been only two large international-standard hotels opened, one in Sydney and one in Melbourne, with a third (in Sydney) scheduled for completion in 1966. Growth of new accommodation at resorts, with exceptions such as in the Kosciuszko State Park and on the Gold Coast of Queensland, has been fairly slow.

In the past, finance, or the lack of it, has been a controlling factor in the development of travel and tourism, and adequate finance is essential to future tourism in Australia. Hotel investment is characterized by heavy capital costs in fixed property assets, on which depreciation is not allowable for taxation purposes, and offers moderate returns, in the short term, on capital. A modern international hotel may take three years to plan and another two to become established. Thus it is necessary to have at least two-thirds of the capital investment in long-term, low-interest loans. It is difficult to attract capital for hotel investment where other investment opportunities offering quick and safe returns exist. Equity capital must often come from persons or organizations who wish to diversify their investments by the inclusion of some ventures with good long-term prospects. Such organizations may include carrier companies and land developers. The three major hotel projects in Sydney and Melbourne in recent years have been of a type where capital has been furnished by or through carrier or other outside institutions, and in two of the three cases the hotel was a part of a multi-purpose site development plan. In only one case has any Australian-owned accommodation organization been able to attract a large amount of over-sea capital for its own development.

Tasmania has endeavoured to solve the problem of financing accommodation development by means of the *Tourist Accommodation Loans Act 1945*, which set up a fund for loans for approved projects. The amount lent from 1945 to 30 June 1965 was \$1,830,000. This has assisted in achieving a more balanced development of accommodation in that State. The Western Australian Government has given guarantees, under the Industries Advances Act, to enable loans for essential additional self-contained accommodation to be provided in certain areas of the State. Similarly, Queensland has provided bank guarantees, through its Department of Industrial Development, for comparatively small sums to some resort operators in under-developed or semi-developed areas.

Grading of accommodation. Standard gradings not only help the tourist to choose the accommodation best suited to his needs, but they are also valuable in raising standards. Although there are no grading systems on the lines of the *Michelin Guide* of France and those of other European countries, the National Roads and Motorists' Association in New South Wales, the Royal Automobile Club of Victoria, and the Royal Automobile Association of South Australia each has its own classification according to star ratings. The Western Australian Tourist Development Authority announced in 1965 that a system of grading of accommodation would be introduced by the State Licensing Court, in co-operation with the Authority.

Other accommodation matters. There is insufficient trained personnel, particularly at management levels. The staggering of holidays would reduce seasonality of demand for accommodation, especially at certain resort areas. The lack of a uniform system of accommodation accounting (such as that used in the United States) and an absence of accurate knowledge of occupancy ratios for the main categories of accommodation at principal centres handicap persons interested in investing in existing, and developing new, accommodation.

The Australian Hotels Association (AHA), which has Residential Divisions in each State, is the trade association representing the interests of hotels. In the motel field the principal organizations are the Motel Federation of Australia (MFA) and Flag Motels ('Flag'), both of which set membership standards and whose members mutually refer bookings within their own membership. About ninety per cent of Australia's motels belong to such referral groups or large motel chain operations. A significant step was taken in 1965 when representatives of the A.H.A., M.F.A., Flag, and other motel organizations met to form the Australian Accommodation Council, whose purpose is to act on behalf of the whole industry on appropriate occasions.

Travel agencies

Travel is sold through private travel agents as well as by transportation and accommodation principals through their own booking offices. A great deal of travel is sold also through bank travel services, automobile club travel departments and State Government tourist bureaux. Travel agencies of whatever type earn their income from commissions on transport, tour, cruise, and accommodation bookings. Travel to overseas destinations is thus of greater importance to travel agents than is domestic travel (with its lower, or even non-existent, commission rates) or handling incoming travellers' arrangements in Australia.

The *Australian Federation of Travel Agents* is a trade association of travel agents founded in 1957, whose aims include establishing and maintaining a code of ethics for travel agents and the linking into one organization of persons engaged in the travel agency field. Active members, who must be travel agents appointed by principals or conferences of principals, such as the Australian Passenger Agents Conference or the International Air Transport Association, numbered 130 at 30 June 1965. There are also thirty-one associate members, i.e. travel agents who do not qualify as active members, and forty-five allied members (e.g. hotels, motels and car rental firms).

International travel and tourism organizations

The growth of international travel and tourism in recent times has contributed to the extension of the activities of existing, and the creation of new, international organizations in this field. The work of the new organizations, whose main aim is to achieve international collaboration in the field of travel, tourism and activities directly connected with or depending on tourism, has in turn facilitated the growth of travel and tourism. Most of the promotion and transport organizations and the accommodation and travel agency associations in Australia are affiliated with international organizations in their field.

The *International Union of Official Travel Organizations (IUOTO)*, with headquarters in Geneva, has consultative status with ECOSOC and UNESCO and had ninety-five full members in 1965. Full members comprise governmental organizations or national organizations established or recognized by their governments and dealing with the development of national and international tourism to or in their countries. Australia is represented by the Australian National Travel Association as full member. Amongst the most significant activities of the Union are the establishment and application of technical training in tourism (under which five trainees have now come to Australia in the last two years for three months training with ANTA); action with a view to the convening by the United Nations of a world conference on international travel and tourism; and organization of travel research seminars devoted to questions of travel statistics, market surveys, forecasting, and tourist publicity. There are seven Regional Commissions, and Australia is a member of the Regional Commission for the Pacific and Far East. In addition, there are five Technical Commissions studying travel development, elimination of travel barriers, travel plant, research, and transport.

The *Pacific Area Travel Association (PATA)* is a regional promotion organization which, in 1966, had 785 members from forty-eight countries. Its headquarters are in San Francisco. Membership in February 1966 included thirty-three active government members (Australia is represented by the Australian National Travel Association and also one State—the New South Wales Department of Tourist Activities); forty-three active carrier members (representatives from Australia are Qantas Empire Airways, the two main domestic airlines and Ansett-Pioneer); and 711 other members in the fields of travel agencies, hotels, restaurants and operators of sightseeing tours, publishers and others, distributed over the categories of Allied Members and Associate Members. The aim of PATA is to develop, promote and facilitate travel to and within the Pacific area, and for this purpose to co-ordinate the efforts of groups concerned in co-operation with official tourist departments. The Association engages in tourist publicity activity for the Pacific, primarily in North America and, in more recent years, in Western Europe and elsewhere. It also maintains an information service and undertakes research.

The *International Automobile Federation* is composed of national automobile associations (one from each country) and has more than fifty members. Australia is represented by the Australian Automobile Association, with which Australian motoring organizations are affiliated.

The *International Air Transport Association (IATA)*, with headquarters in Montreal, Canada, has regional offices in New York, Paris and Singapore. There are two categories of members, active members representing the air transport enterprises which carry the flag of a member-country of the International Council of Aeronautical Organizations (ICAO) and which operate a regular air transport service for passengers, mail or freight between the territories of two or more countries, and associate members which operate air transport enterprises in one country alone. The main aims of IATA are to promote the development of reliable, regular and economic air transport and to encourage co-operation amongst air transport enterprises working directly or indirectly on international routes.

The *International Hotel Association (IHA)* had fifty-one national-member hotel associations (one from each country) in 1965 and also had members drawn from individual hotels and restaurants in more than seventy-five countries. The Australian Hotel Association and eight individual Australian hotels are members. IHA studies problems of the industry from an international point of view as well as problems of international tourist traffic, and also deals with relations between the hotel industry and travel agencies, professional instruction and training visits abroad.

The *Union of Official Travel Agents' Associations* was formed in 1964 by the national travel agency organizations. Its aims are to protect and further the interests of its members at the international level. Australian travel agents are represented by the Australian Federation of Travel Agents.

Inter-governmental organizations

The *Economic and Social Council of the United Nations Organization* has on several occasions manifested an interest in tourist problems, especially in its resolutions on the development of international tourism in March 1955 and in April 1957. In 1959 the Council referred to the

resolution adopted by the International Union of Official Travel Organizations in 1958 asking for the convening by the Council of an international diplomatic conference on international tourism. The Council invited the Secretary-General of the United Nations to pursue studies in the matter of international tourism and to submit to the Council recommendations concerning the development of international tourism, including the advisability of convening an international conference on this subject. This resolution of the Economic and Social Council was the starting point of work which culminated in the convening of the United Nations World Conference on International Travel and Tourism in Rome in August-September 1963. The Conference, which was attended by a delegation from Australia, and its many recommendations represent a great step forward in the development of world tourism. The recommendations are being followed up by IUOTO and its members.

The following *specialized agencies* of the United Nations carry out activities which concern international tourism. UNESCO encourages international tourism, particularly of young people. It facilitates international contacts through conferences and strives for the preservation of historical sites. It maintains close relations on these and similar topics with IUOTO. The *International Civil Aviation Organization* (ICAO), of which Australia is a member through the Department of Civil Aviation, aims to determine and develop principles on which international air navigation is based, and to encourage the development of international air routes, airports and air navigation facilities. ICAO also aims to reduce or even abolish certain formalities associated with air travel and consequently to make air travel easier and more comfortable. The results of this facilitation activity are contained in Annex 9 of the 1944 Convention on International Civil Aviation, which has been modified and added to on several occasions. In Annex 9 of the ICAO Convention a set of standards and recommended practices are set out, which member countries are encouraged to achieve. Under the articles of the convention, member countries must report regularly on remaining differences between these standards and national practices. National 'FAL Committees' in member countries meet regularly to achieve facilitation of air travel. The *International Maritime Convention Organization* has similar aims and activities in respect of the facilitation of sea travel, and non-governmental organizations such as IUOTO and PATA also work towards the facilitation of international travel generally.

Training facilities in the travel and tourist industries

The quality of services rendered by the employees of the various businesses involved in travel and tourism is a most important factor in visitor satisfaction. It has given cause for some concern in Australia, where most training is provided on the job or by courses of the 'in-service' type. The airlines, one or two of the State tourist departments and national park services, a car rental company, one major motel chain, and a motor-coach company hold training courses from time to time for particular groups of employees. Air and shipping companies hold short training seminars periodically for staff of travel agencies to familiarize them with particular aspects or features of the carriers' equipment or procedures of the States. The New South Wales Department of Tourist Activities has held an annual conference in recent years for the purpose of providing training for, and opportunity for discussion between, representatives of the regional tourist organizations. The Queensland Government Tourist Bureau held a Tourist Industry Seminar in 1963.

Formal training facilities are available only in the catering and hotel management fields and in certain trades. There are no intramural training courses in Australia which provide a qualification for employees of travel agents or for tourist guides, although the Australian Federation of Travel Agents has set up a course of studies by correspondence leading to a diploma in travel.

A three- to four-year full-time course (seven months at school, five months in industry) towards a Diploma of Catering and Hotel Management is available at the William Angliss Food Trades School in Melbourne (from which one student graduated in 1966); and a four-year part-time course is offered at the East Sydney Technical College in Sydney, both for potential hotel executives. Certificate and diploma part-time courses are available at the Brisbane Technical College in management—hotel executive staff, and a part-time course at the Hobart Technical College in hotel management. Full-time and part-time courses in some accommodation and catering industry occupations, such as cooks, housekeepers, waiters, and bartenders, are offered at technical colleges in Sydney, Melbourne, Brisbane, Adelaide, Perth, and Hobart. However, it is generally agreed that there is a shortage of trained personnel, which may be relieved by wider appreciation of the skills required in these trades.

MEASURES OF TRAVEL VOLUME AND FLOW AND VISITOR SPENDING

The following paragraphs provide a summary of available statistics relating to tourism.

Oversea movement

Definitions

As part of the official collection of statistics of overseas arrivals in, and departures from, Australia, the Commonwealth Statistician provides information about the volume and characteristics of overseas travel to and from Australia. The Statistician classifies all arrivals and departures into three categories, namely: *permanent movement* (i.e. settlers arriving and Australian residents departing permanently); *long-term movement* (i.e. Australian residents returning to Australia after a stay in a country abroad for one year or longer, or departing from Australia with the intention of staying in a country abroad for one year or more, also overseas visitors arriving with the intention of staying in Australia for a year or more or departing after a stay in Australia of a year or more); and *short-term movement* (i.e. all other movements). The statistics which follow relate to this short-term movement. The short-term movement, as defined by the Statistician, refers basically to travellers, Australian residents and visitors from overseas, who intend to, or actually do, spend a period of less than twelve months in a country abroad or in Australia. The concept does not entirely coincide with the concept of tourists used by international agencies and tourist organizations. The definition includes the movement of Australian troops, regardless of their length of stay abroad, and persons who come to Australia or go abroad for paid work or to study (as long as their intended or actual length of stay is less than one year). It excludes visitors to Australia and residents on visits abroad if their stay in Australia or in a country abroad is one year or more and all crew and persons who arrive in and depart from Australia on the same ship's voyage or on the same flight, but includes persons who, on arrival, declare their purpose of visiting Australia to be 'in transit', as long as a change of ship or flight takes place. Australian residents visiting abroad may be *away from Australia* for more than a year but still be included in the short-term movement as long as their *stay in any one country abroad* is not for a year or more.

Short-term movement—visitors and residents

The following table of short-term visitor arrivals from, and returns to, overseas countries indicates a substantial growth in travel to and from Australia since 1960, mainly by air.

OVERSEA ARRIVALS AND DEPARTURES—SHORT-TERM MOVEMENT
VISITORS, AUSTRALIA, 1956 TO 1965

Year	Arriving			Departing		
	By sea	By air	Total	By sea	By air	Total
1956 . . .	23,135	42,883	66,018	24,818	39,515	64,333
1957 . . .	20,464	38,152	58,616	23,097	36,988	60,085
1958 . . .	19,834	41,508	61,342	21,580	39,452	61,032
1959 . . .	18,907	49,213	68,120	21,792	50,238	72,030
1960 . . .	19,581	65,042	84,623	21,804	62,866	84,670
1961 . . .	19,899	79,397	99,296	25,410	77,130	102,540
1962 . . .	19,165	92,259	111,424	23,253	90,330	113,583
1963 . . .	18,066	107,311	125,377	22,358	106,973	129,331
1964 . . .	18,916	128,962	147,878	22,147	128,494	150,641
1965 . . .	20,291	153,037	173,328	24,491	154,442	178,933

With the number of visitors increasing from year to year, some excess of arrivals over departures in any one year might be expected. However, the reverse has been the case in eight of the ten years shown, and over the whole period departures exceeded arrivals by more than 21,000. The reason lies broadly in the difference between the period of intended stay, as stated on the arrival of the visitor, and the period actually spent in Australia, as stated on his departure, resulting in a different classification on arrival from that on departure. There are other contributory factors, such as complicated travel patterns, which have similar effect.

The increase in travel overseas by Australian residents has been more sustained, both by sea and by air, than the increase in visitor travel to and from Australia.

**OVERSEA ARRIVALS AND DEPARTURES—SHORT-TERM MOVEMENT
AUSTRALIAN RESIDENTS, 1956 TO 1965**

Year	Departing			Returning		
	By sea	By air	Total	By sea	By air	Total
1956	29,161	22,239	51,400	32,789	24,819	57,608
1957	28,189	25,249	53,438	29,897	26,120	56,017
1958	28,933	29,955	58,888	28,165	30,900	59,065
1959	33,715	30,916	64,631	28,070	33,684	61,754
1960	37,160	40,601	77,761	31,945	43,222	75,167
1961	41,870	48,010	89,880	34,818	51,390	86,208
1962	39,230	56,642	95,872	34,531	61,384	95,915
1963	41,053	71,374	112,427	34,205	76,977	111,182
1964	43,785	89,463	133,248	36,430	94,924	131,354
1965	51,138	110,554	161,692	43,382	117,162	160,544

Information is also available as to the country of embarkation on the ship or aircraft which brought visitors to Australia and the country of disembarkation from the ship or aircraft which took residents abroad. The shipping and flight routes available to intending passengers must be taken into account when considering these figures. They do not necessarily indicate the country of origin of visitors, nor the country of destination of residents going abroad.

**OVERSEA ARRIVALS AND DEPARTURES—SHORT-TERM MOVEMENT
COUNTRY OF EMBARKATION OF VISITORS ARRIVING
AND COUNTRY OF DISEMBARKATION OF RESIDENTS DEPARTING
AUSTRALIA 1965**

Country of embarkation or disembarkation	Visitors arriving			Residents departing		
	By sea	By air	Total	By sea	By air	Total
Africa	498	2,281	2,779	480	945	1,425
America—						
United States of America	1,752	11,998	13,750	1,933	11,404	13,337
Other	602	531	1,133	1,170	1,037	2,207
Asia—						
Hong Kong	810	8,593	9,403	922	6,507	7,429
Malaysia and Singapore .	786	12,636	13,422	3,117	9,527	12,644
Other	1,376	11,346	12,722	8,379	7,687	16,066
Europe—						
United Kingdom and						
Ireland	5,437	7,186	12,623	13,142	4,006	17,148
Other	3,033	4,279	7,312	14,022	6,981	21,003
Oceania—						
New Zealand	4,087	68,809	72,896	5,416	38,862	44,278
Papua and New Guinea .	774	16,589	17,363	890	11,810	12,700
Other	1,136	8,789	9,925	1,667	11,788	13,455
Total	20,291	153,037	173,328	51,138	110,554	161,692

For visitors arriving information is also available of their country of last stay (i.e. in which they last stayed for one year or more). No information is available regarding the country in which Australian residents going abroad in the short-term movement intend to spend most time.

**OVERSEA VISITORS ARRIVING—SHORT-TERM MOVEMENT
COUNTRY OF RESIDENCE(a), AUSTRALIA, 1965**

Country of residence(a)	By sea	By air	Total
Africa—			
Commonwealth countries	248	1,416	1,664
South Africa	247	1,555	1,802
Other	19	422	441
America—			
Canada	923	2,962	3,885
Other Commonwealth countries	12	201	213
United States of America	2,274	21,516	23,790
Other	39	628	667
Asia—			
Ceylon, India and Pakistan	289	1,747	2,036
Hong Kong	440	2,174	2,614
Malaysia and Singapore	577	4,798	5,375
Other Commonwealth countries	30	166	196
Japan	184	3,840	4,024
Other	181	4,531	4,712
Europe—			
United Kingdom and Ireland	5,029	17,769	22,798
Other Commonwealth countries	110	115	225
France	109	1,366	1,475
Germany	406	1,979	2,385
Greece	377	268	645
Italy	253	922	1,175
Netherlands	996	1,589	2,585
Switzerland	96	690	786
Other	413	2,653	3,066
Oceania—			
Fiji	214	2,182	2,396
New Zealand	4,847	58,088	62,935
Papua and New Guinea	1,018	15,585	16,603
Other Commonwealth countries	626	963	1,589
Other	334	2,912	3,246
Total	20,291	153,037	173,328

(a) Country in which the visitor was last resident for a period of one year or more.

The two preceding tables present contrasts between the countries in which visitors actually resided (for one year or more) prior to their visit to Australia and the countries in which they embarked (on what in many cases would have been a stage of their journey determined by the available shipping or flight route). While about 14,000 short-term visitors embarked in the United States for their visit to Australia, nearly 24,000 United States residents visited Australia in the short-term movement. Many Canadian and European residents also arrive in Australia on ships or planes which they boarded after leaving their home countries.

The intended length of stay by visitors to Australia and by residents going abroad is related to the purpose of the journey in the following tables.

**OVERSEA VISITORS ARRIVING—SHORT-TERM MOVEMENT
LENGTH OF STAY, BY PURPOSE, 1965**

Intended length of stay	Business	Holiday	Education	Other and not stated	In transit(a)	Total
Under 1 week	5,869	7,257	205	1,316	22,257	36,904
1 week and under 2 weeks	7,822	12,278	392	1,433	2,463	24,388
2 weeks and under 3 weeks	6,404	15,457	377	1,496	1,012	24,746
3 weeks and under 1 month	2,411	11,393	197	562	304	14,867
1 month and under 2 months	4,295	14,741	335	1,346	507	21,224
2 months and under 3 months	1,557	8,140	254	766	..	10,717
3 months and under 4 months	1,461	7,690	980	1,126	..	11,257
4 months and under 6 months	425	3,022	260	324	..	4,031
6 months and under 12 months	1,211	6,199	3,614	1,249	..	12,273
Indefinite, not stated, etc.	715	2,914	418	1,346	7,528	12,921
Total	32,170	89,091	7,032	10,964	34,071	173,328

(a) Includes those visitors who stated 'In transit' as the purpose of their journey to Australia and whose intended length of stay did not exceed one month, but excludes passengers passing through Australia without change of ship or aircraft.

More than one-third of the short-term visitors arriving stated that they intended to stay less than two weeks. The preponderance of persons on holidays in the two- to three-weeks group may be attributed in some degree to the short 'Airconomy' package tours available to New Zealanders.

**AUSTRALIAN RESIDENTS DEPARTING—SHORT-TERM MOVEMENT
LENGTH OF STAY, BY PURPOSE, 1965**

Intended length of stay	Business	Holiday	Education	Other and not stated	Total
Under 1 week	4,231	1,680	137	679	6,727
1 week and under 2 weeks	4,825	5,992	156	708	11,681
2 weeks and under 3 weeks	3,663	15,256	281	581	19,781
3 weeks and under 1 month	1,910	12,883	143	375	15,311
1 month and under 2 months	5,655	18,331	268	976	25,230
2 months and under 3 months	4,001	11,152	220	644	16,017
3 months and under 4 months	2,823	7,948	247	797	11,815
4 months and under 6 months	1,263	7,949	141	435	9,788
6 months and under 12 months	2,172	21,324	471	1,980	25,947
Indefinite, not stated, etc.	1,740	8,491	301	8,863	19,395
Total	32,283	111,006	2,365	16,038	161,692

About one-quarter of those Australians departing for holidays stated that they intended to stay from one month up to three months.

The variation in the length of stay of visitors from different countries is indicated in the next table.

OVERSEA VISITORS ARRIVING—SHORT-TERM MOVEMENT
COUNTRY OF RESIDENCE(a) AND INTENDED LENGTH OF STAY
AUSTRALIA, 1965(b)

Country of residence (a)	Intended length of stay										Total (b)
	Under 1 week	1 and under 2 weeks	2 and under 3 weeks	3 weeks and under 1 month	1 and under 2 months	2 and under 3 months	3 and under 4 months	4 and under 6 months	6 and under 12 months	Indefi- nite, not stated, etc.	
Africa	189	238	235	156	507	403	212	135	229	102	2,406
America—											
U.S.A. . . .	3,755	5,032	3,743	1,413	3,257	1,336	950	367	1,099	533	21,485
Other	336	835	614	272	776	347	314	167	339	217	4,217
Asia—											
Hong Kong . .	155	230	196	96	301	139	190	48	355	142	1,852
Malaysia and Singapore . .	333	456	503	226	688	338	322	177	1,095	253	4,391
Other	1,253	1,386	1,366	427	1,216	501	603	202	638	288	7,880
Europe—											
United Kingdom and Ireland . .	1,185	1,968	2,248	1,462	2,895	1,764	1,822	968	1,912	871	17,095
Other	977	1,171	1,063	303	1,186	627	1,133	353	2,050	421	9,284
Oceania—											
New Zealand . .	4,991	9,185	12,381	9,397	6,015	2,348	1,638	615	1,993	1,885	50,448
Papua and New Guinea	1,083	862	858	517	2,782	2,114	3,373	791	2,099	400	14,879
Other	390	562	527	294	1,094	800	700	208	464	281	5,320
Total	14,647	21,925	23,734	14,563	20,717	10,717	11,257	4,031	12,273	5,393	139,257

(a) The country in which the visitor was last resident for a period of one year or more. (b) Excludes 34,071 passengers who stated 'In transit' as the purpose of their journey to Australia and whose intended length of stay did not exceed one month.

Statistics have not been compiled so far to indicate the respective lengths of stay of visitors from various countries according to purpose of journey.

The seasonal pattern of overseas short-term travel to and from Australia is shown in the next table which provides monthly figures of arrivals and departures during 1965.

OVERSEA ARRIVALS AND DEPARTURES—SHORT-TERM MOVEMENT
MONTH OF ARRIVAL OR DEPARTURE, AUSTRALIA, 1965

Month	Visitors						Residents					
	Arriving			Departing			Departing			Returning		
	By sea	By air	Total	By sea	By air	Total	By sea	By air	Total	By sea	By air	Total
January	1,666	12,066	13,732	1,974	16,157	18,131	3,141	8,985	12,126	2,737	14,892	17,629
February	1,895	13,886	15,781	2,287	12,187	14,474	3,887	7,977	11,864	3,089	9,726	12,815
March	1,839	12,847	14,686	2,774	13,241	16,015	6,216	8,348	14,564	2,877	8,796	11,673
April	1,839	12,363	14,202	2,607	13,039	15,646	6,010	9,704	15,714	3,398	7,767	11,165
May	1,575	11,835	13,410	2,458	13,270	15,728	6,279	10,403	16,682	3,082	9,292	12,374
June	641	9,438	10,079	1,722	9,899	11,621	3,842	7,990	11,832	1,597	8,221	9,818
July	948	10,538	11,486	784	9,956	10,740	2,273	7,616	9,889	2,251	8,386	10,637
August	1,262	12,896	14,158	1,922	11,492	13,414	4,191	8,938	13,129	3,503	9,760	13,263
September	1,503	11,206	12,709	1,866	13,501	15,367	4,061	7,891	11,952	4,438	11,578	16,016
October	1,946	13,960	15,906	2,059	12,852	14,911	2,928	7,941	10,869	7,134	10,838	17,972
November	2,167	13,748	15,915	1,976	15,140	17,116	3,663	7,815	11,478	4,265	9,066	13,331
December	3,010	18,254	21,264	2,062	13,708	15,770	4,647	16,946	21,593	5,011	8,840	13,851
Total	20,291	153,037	173,328	24,491	154,442	178,933	51,138	110,554	161,692	43,382	117,162	160,544

Visits to Australia are most popular in the period October to February, which corresponds to the northern hemisphere winter and is the traditional New Zealand holiday season. The autumn months are most popular with Australian residents going abroad.

The sex, marital status and age of travellers in the short-term movement to and from Australia are shown in the next table.

**OVERSEA VISITORS ARRIVING AND AUSTRALIAN RESIDENTS DEPARTING
SHORT-TERM MOVEMENT: MARITAL STATUS AND AGE, AUSTRALIA, 1965**

Characteristics	Visitors arriving			Residents departing		
	Males	Females	Persons	Males	Females	Persons
Marital status—						
Never married	34,213	25,405	59,618	31,660	25,968	57,628
Married	63,920	37,739	101,659	56,628	35,756	92,384
Widowed or divorced . .	3,796	8,255	12,051	3,086	8,594	11,680
<i>Total</i>	<i>101,929</i>	<i>71,399</i>	<i>173,328</i>	<i>91,374</i>	<i>70,318</i>	<i>161,692</i>
Age (years)						
9 and under	5,876	5,587	11,463	4,339	4,139	8,478
10 to 19	6,820	7,042	13,862	6,361	6,998	13,359
20 to 49	60,571	32,986	93,557	55,541	33,677	89,218
50 and over	28,662	25,784	54,446	25,133	25,504	50,637
<i>Total</i>	<i>101,929</i>	<i>71,399</i>	<i>173,328</i>	<i>91,374</i>	<i>70,318</i>	<i>161,692</i>

Direct transit travellers

As pointed out on page 1771, all the preceding figures in this section exclude persons who arrive in and depart from Australia on the same ship's journey or on the same flight. Persons thus excluded are not all normally considered visitors to Australia. For instance, settlers or other persons going to New Zealand, Papua and New Guinea or other neighbouring countries or leaving such countries may travel through Australia on their way. On the other hand, all persons visiting Australia on various cruise vessels, which may remain in Australian waters for a considerable time, are also treated as direct transit travellers and are thus excluded from the figures shown on previous pages. In 1965, 26,661 persons were reported as direct transit passengers on ships calling at Australian ports, accounting for approximately 166,000 passenger-days between arrival at first port and departure from last port in Australia.

**OVERSEA SHIPPING PASSENGERS IN DIRECT TRANSIT(a)
AUSTRALIA, 1965**

Approximate period from first to last Australian port (days)	Passengers	Passenger-days
	per cent	per cent
2 or less	22.3	4.4
3- 4	13.0	6.3
5- 6	4.1	3.7
7- 8	27.1	32.7
9-10	30.9	46.0
11-21	2.1	4.3
22 and over	0.5	2.6
Total	100.0	100.0

(a) Persons who arrived in and departed from Australia on the same ship's voyage.

Interstate and other internal movement

Information about the volume and pattern of travel within Australia is limited. Figures are available on passengers transported in Australia by sea, air and rail, but the last two do not distinguish different types of travellers, nor provide detail of their origin and destination.

Sea travel

Interstate movement by sea is shown in the following table, according to State or Territory of embarkation and of disembarkation.

**INTERSTATE PASSENGERS BY SEA, BY STATE OR TERRITORY OF EMBARKATION
AND OF DISSEMBARKATION, 1965(a)**

State or Territory of embarkation	State or Territory of disembarkation							Total
	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	
New South Wales . .	694	4,240	832	1,883	3,865	10,473	..	21,987
Victoria	5,868	2,095	706	475	2,677	44,908	..	56,729
Queensland	496	265	20	4	121	..	..	906
South Australia . .	649	130	32	9	777	1	..	1,598
Western Australia .	2,269	1,427	167	195	72	4	1,106	5,240
Tasmania	9,739	43,925	8	..	1	..	..	53,673
Northern Territory .	3	4	28	..	746	..	..	781
Total	19,718	52,086	1,793	2,566	8,259	55,386	1,106	140,914

(a) Excludes crew and persons carried as supernumerary crew.

The above table includes passengers on interstate journeys beginning and ending in the same State. It excludes, however, passengers on cruises from Australia to the south-western Pacific area and back. It is estimated that about 15,300 travellers embarked on such cruises in 1965. All these, and about one in four of the interstate passengers included above, were carried on oversea vessels. Most of the passengers carried interstate by Australian-licensed vessels travelled between the mainland and Tasmania.

The following table shows the movement of passengers and cars between Melbourne and Devonport by the Australian National Line passenger-car ferry service inaugurated in 1959.

**AUSTRALIAN NATIONAL LINE: MELBOURNE-
DEVONPORT PASSENGER-CAR FERRY(a)
1959-60 TO 1965-66**

Year	Passengers	Cars
1959-60	64,860	16,980
1960-61	83,191	19,841
1961-62	86,792	19,172
1962-63	89,589	19,755
1963-64	89,235	20,054
1964-65	89,694	20,476
1965-66	88,274	21,270

(a) Passengers and cars which are carried both to and from Tasmania are counted twice.

Air travel

During 1964-65 regular internal air services throughout Australia recorded 3.77 million journeys of paying passengers. This figure represents the embarkations on all airline flights, and passengers making a journey consisting of more than one flight (as identified by a particular flight number) are recorded as making more than one journey. A total of 1,639 million paying passenger-miles was recorded during 1964-65, an increase of 114 per cent over the figure recorded for 1954-55. *See also* page 482 of the chapter Transport and Communication.

The following table shows the passenger movement on internal flights through each of the principal Australian airports during the years 1960-61 to 1964-65. The movement figures represent total embarkations on, and disembarkations from, each airline flight at the airports specified. Movements to and from Papua and New Guinea and Norfolk Island are included.

**CIVIL AVIATION: INTERNAL PASSENGER MOVEMENT AT PRINCIPAL
AUSTRALIAN AIRPORTS, 1960-61 TO 1964-65**

Airport	1960-61	1961-62	1962-63	1963-64	1964-65
Sydney	1,442,317	1,493,820	1,566,778	1,802,618	2,086,571
Melbourne	1,154,704	1,133,534	1,210,093	1,393,227	1,587,833
Brisbane	514,235	506,642	548,044	635,468	754,296
Adelaide	419,384	400,372	468,576	526,764	618,101
Canberra	207,865	199,507	221,810	263,331	318,882
Perth	125,528	129,181	158,606	175,351	209,972
Hobart	124,348	120,274	128,412	143,066	158,287
Launceston	127,258	126,296	131,021	142,490	152,175
Townsville	85,331	87,038	95,227	111,207	137,079
Cairns	55,761	55,829	62,720	69,914	83,503
Coolangatta	56,887	54,381	54,387	61,949	76,720
Mackay	42,074	38,502	38,270	45,310	61,071
Rockhampton	40,356	37,981	41,623	46,524	55,809
Cooma	36,763	39,156	40,733	46,864	50,757
Devonport	32,753	34,329	35,971	39,377	45,401
Wagga	55,359	39,868	36,836	41,135	43,404
Kingscote	29,258	29,008	30,792	32,821	40,591
Tamworth	30,798	30,522	31,592	36,869	40,253
Port Lincoln	30,966	30,342	32,057	33,859	38,858
Darwin	23,443	25,803	29,721	34,159	38,804

This table indicates a substantial over-all increase over the past few years in travel by air within Australia. Outside the capital cities, the most significant increases occurred on the Central and North Queensland Coast.

Rail travel

The following table shows the number of passenger journeys (excluding suburban journeys) made within each railway system. *See also* page 465 of the chapter Transport and Communication.

GOVERNMENT RAILWAYS: PASSENGER JOURNEYS^(a)

(EXCLUDING SUBURBAN JOURNEYS)

('000)

System	1954-55	1963-64	1964-65
New South Wales	12,401	13,358	13,312
Victoria	6,247	5,082	4,907
Queensland	6,207	3,391	2,961
South Australia	1,399	895	870
Western Australia	785	516	484
Tasmania	(b) 595	197	205
Commonwealth—			
Trans-Australian	110	236	238
Other	105	102	109
Australia	27,849	23,777	23,086

(a) Based on ticket sales, making allowances for periodical tickets. Inter-system traffic is included in the total for each system over which it passes. (b) Concession tickets were counted according to the proportion of the adult fare charged, but subsequently have been counted as full journeys.

Passenger traffic on the Trans-Australia route more than doubled over the ten-year period; it is expected to increase even further with the completion of the trans-continental standard gauge line from Sydney to Perth in 1968-69.

Motor vehicle travel

Some information on the usage of motor vehicles was obtained in a sample survey conducted throughout Australia by the Commonwealth Bureau of Census and Statistics in November 1963. The sample comprised 19,676 vehicles, of which 2,742 were cars or station

wagons. Because the survey results are based on a sample, they are subject to sampling variability and may therefore differ somewhat from the results that would have been obtained from a complete enumeration of all registered motor vehicles. The principal figures relating to cars and station wagons are shown in the following table. They are quoted from a preliminary report on the survey and are subject to revision.

SURVEY OF MOTOR VEHICLE USAGE, 1963
CARS AND STATION WAGONS: STATES AND TERRITORIES
(Preliminary estimates)

	N.S.W. (a)	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	Aust.
All cars and station wagons on register(b)—								
Number on register(c)	880,600	707,200	304,400	246,700	170,800	78,400	6,000	2,394,100
Average annual mileage per vehicle . . . miles	8,580	8,650	7,950	8,180	9,090	8,460	8,390	8,510
Business mileage—proportion of all mileage per cent	32.5	29.8	28.1	25.0	26.6	31.4	24.4	29.9
Cars and station wagons, by business mileage(d)—								
Proportion with no business mileage per cent	67.4	66.8	71.3	73.1	73.3	70.2	78.2	68.9
Proportion with business mileage per cent	32.6	33.2	28.7	26.9	26.7	29.8	21.8	31.1
Total per cent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Cars and station wagons, by use for travel to and from work(d)—								
Proportion not used per cent	25.6	28.0	31.5	28.6	24.3	23.0	28.9	27.2
Proportion used on most working days per cent	58.8	57.0	52.8	53.3	62.2	62.4	55.6	57.3
Proportion used on occasional working days per cent	15.6	15.0	15.7	18.1	13.5	14.6	15.5	15.5
Total per cent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Cars and station wagons in metropolitan and non-metropolitan areas(d)(e)—								
Proportions of totals—								
Metropolitan per cent	54.8	67.0	45.3	61.0	71.5	38.8	61.9	58.5
Non-metropolitan per cent	45.2	33.0	54.7	39.0	28.5	61.2	38.1	41.5
Total per cent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Average annual mileage per vehicle—								
Metropolitan miles	9,070	8,600	9,050	7,760	9,150	8,930	9,130	8,770
Non-metropolitan miles	8,960	9,160	7,330	9,330	9,400	8,390	7,640	8,760
All vehicles miles	9,020	8,780	8,110	8,370	9,220	8,600	8,560	8,760
Business mileage, proportion of total—								
Metropolitan per cent	30.4	27.9	34.6	25.5	25.6	38.3	23.9	29.2
Non-metropolitan per cent	35.1	33.5	21.5	24.4	29.1	26.8	26.8	30.9
All vehicles per cent	32.5	29.8	28.1	25.0	26.6	31.4	24.9	29.9

(a) Includes Australian Capital Territory.
the numbers on the register in each month of 1963.
at registration.

(b) Includes vehicles in dealers' ownership.
(d) Excludes vehicles in dealers' ownership.

(c) Average of
(e) Address

An indication of the growth in the use of the motor vehicle as a means of travel is provided by the following figures of combined membership of Australian motoring organizations affiliated with the Australian Automobile Association.

1961	. . .	1,194,658
1962	. . .	1,291,021
1963	. . .	1,406,055
1964	. . .	1,543,415
1965	. . .	1,676,592

For information on the numbers of motor vehicles on the registers of the States and Territories see pages 473-5 of the chapter Transport and Communication.

Visitor spending

Spending by overseas visitors to Australia and by Australians abroad

Balance of payments estimates. No direct measure is available of the spending by short-term visitors to Australia or by Australians going abroad in the short-term movement. Expenditures by or on behalf of these visitors, insofar as they are met from external sources of funds, represent a credit item in the balance of payments of the country visited. Official estimates are made of

transactions between Australian residents and the rest of the world classifiable to 'travel' in the course of preparation of estimates of Australia's balance of payments. These estimates are based largely on the foreign exchange record compiled by the Reserve Bank of Australia, which covers travellers' cheques cashed, Australian currency exchanged for visitors' foreign currency, and drawings under letters of credit, etc. by persons visiting Australia for pleasure, business or other reasons, and by Australians visiting overseas. Earnings of Australian domestic airlines for the on-carriage of overseas visitors over internal air routes are included, but, in accordance with the internationally adopted definitions recommended by the International Monetary Fund, overseas earnings of Australian carriers and earnings of overseas shipping and airline companies in respect of fares paid in Australia are excluded from this item and included in the item 'transportation'. Papua and New Guinea are not treated as part of Australia for balance of payments purposes.

**BALANCE OF PAYMENTS, AUSTRALIA: CURRENT ACCOUNT INVISIBLE CREDITS
AND DEBITS ALLOCATED TO TRAVEL, 1949-50 TO 1964-65**
(\$ million)

Year	Credits (a)	Debits (b)	Year	Credits (a)	Debits (b)	Year	Credits (a)	Debits (b)
1949-50 .	8	24	1954-55 .	11	43	1960-61 .	30	83
1950-51 .	9	25	1955-56 .	12	45	1961-62 .	34	82
1951-52 .	9	28	1956-57 .	18	44	1962-63 .	33	90
1952-53 .	10	37	1957-58 .	15	56	1963-64 .	41	102
1953-54 .	10	33	1958-59 .	17	57	1964-65 .	51	114
			1959-60 .	21	72			

(a) Net receipts of travellers' cheques, etc., from persons visiting Australia.

(b) Net remittances of travellers' cheques, etc. by Australians visiting overseas.

The scope of these balance of payments estimates does not necessarily correspond to various concepts of international tourist expenditure. The estimates record only the direct expenditure by travellers, whereas in assessing the net gain or loss in foreign exchange resulting from international tourism indirect effects as well as these direct effects may be taken into account.

Surveys of direct spending. Surveys of direct spending by visitors, requiring the questioning of visitors at or near the time of their departure, have been made from time to time. One such survey was undertaken on behalf of the Australian National Travel Association by a private market research organization in 1962-63. The survey consisted of a sample of departing visitors who were given questionnaire cards to complete (about 1,360 usable returns were obtained) and a sample of about 400 overseas visitors staying at Sydney hotels who were interviewed. The average daily spendings of visitors as indicated by the results of this survey were as follows.

SURVEY OF OVERSEA TRAVELLERS IN AUSTRALIA, 1962-63
AVERAGE DAILY SPENDING PER HEAD(a)

(Source: Survey undertaken for Australian National Travel Association)

(\$)

	Visitors from—				
	United Kingdom	Other Common-wealth countries excl. New Zealand	New Zealand	United States of America	Elsewhere
Interviews at Sydney hotels(b)—					
Business visitors	24.6		24.8	25.2	23.6
Non-business visitors	18.2		17.2	19.4	25.6
Returned questionnaire cards(c) .	7.36	8.90	8.86	13.32	9.82

(a) The amounts shown relate to spending in Australia, as information regarding advance payments was sought in a separate questionnaire. The results were divided by the number of persons covered and by the number of days spent in Australia. (b) The question asked was 'How much would you (and your family) spend daily here?'. (c) The question asked was 'How much did you spend on your visit within Australia?'.

Visitor spending is likely to be at a lower daily rate as the length of the visit is prolonged. The following estimates of average daily visitor spending were published in the report submitted to the Australian National Travel Association by two firms of consultants consequent to a survey undertaken during 1964 (*see* page 1182).

**ESTIMATES OF AVERAGE DAILY VISITOR SPENDING
PER HEAD, 1965**

(*Source:* Survey undertaken for Australian National Travel Association)
(\$)

Market area	Period of stay	
	Under one month	Over one month
New Zealand and Oceania	14	8
United States and Canada	26	14
United Kingdom and Europe	16	8
Japan, Hong Kong and Philippines . .	20	10
Other areas	14	8

Although the proportions of money spent by visitors on accommodation, food, shopping souvenirs, etc. vary, amongst other reasons, in accordance with personal predilections of visitors and with the differing opportunities for spending provided, they tend to follow a similar pattern. Differences in estimates of spending patterns given by various surveys may not be entirely due to actual differences in the spending patterns of the visitors surveyed, but may be partly explained by differences in the allocation of items of expenditure to the various categories of expenditure. The report *The Future of Travel in the Pacific and Far East* indicated that spending by an overseas visitor in the country visited tended to be in the following proportions: accommodation, 25 per cent; food and drink, 32 per cent; purchases, 25 per cent; sightseeing and amusement, 10 per cent; local transportation, 5 per cent; and other spending, 3 per cent. The ANTA Survey of 1962-63 classified spending as follows: accommodation (including meals in hotels), 38 per cent; other meals, 18 per cent; shopping, 18 per cent; tours, 5 per cent; entertainment, 10 per cent; local transport, 11 per cent.

Miscellaneous measures and local surveys of tourist travel and spending

Apart from the estimates of travel, spending, accommodation, etc. referred to elsewhere in this article, all of which are attempts to measure aspects of tourist travel and spending for Australia as a whole, there are many types of statistics collected or estimates made which refer to specific areas, often in considerable detail. While the main purpose of such collections is to assist in the planning of services in, and development of, the areas concerned, they also provide information on, or at least impressions of, travel and spending patterns elsewhere. Some of these statistics are briefly referred to here.

The National Capital Development Commission in the Australian Capital Territory conducts, for planning purposes, sample surveys of visitors, usually over the Easter period, to obtain data about their origin, route, destination, means of transport, length of stay, type of accommodation used, and reactions to Canberra's facilities and attractions. The Commission has also made studies of convention facilities and accommodation occupancy and growth to assist its planning activities.

A series of surveys has been initiated in New South Wales, commencing with a pilot study of the characteristics and economic value of tourism to Port Macquarie.

The Snowy Mountains Authority has maintained statistics since 1958 of the number of passengers on conducted tours of the Scheme. For the year 1964 the total was estimated at 53,000.

The South Australian Government Tourist Bureau has compiled an annual estimate of the number of interstate and overseas holiday and business visitors to South Australia. For 1964 it was estimated that nearly half a million visitors to South Australia spent approximately \$21 million.

In Queensland the Gold Coast City Council in 1964 made an assessment of the number of visitors and the value of their expenditure to the Gold Coast. Working from estimates of the

average costs of a family of four in various types of accommodation, including caravan and camping parks, and based on the assumptions of fifty per cent occupancy and an average length of stay of one week, the total income from the tourist trade in 1964 was assessed at nearly \$72 million.

The Northern Territory Tourist Board has estimated that 28,500 people visited the Northern Territory in 1964, about seven per cent of whom came from overseas. On the basis of its estimate that the average visitor to Alice Springs stays eleven days and spends \$13.75 a day, and the average visitor to Darwin stays 3.75 days and spends \$17.50 a day, the value of tourist spending to the Northern Territory is estimated at about \$8 million a year.

Small local surveys, often by means of questionnaire cards filled in by visitors, have been undertaken in many centres. The Municipality of Cooma estimated that in 1964 about \$800,000 a year in wages earned by the local population could be attributed to visitors. Sixty-eight per cent of the total parties surveyed were on their first visit. Average length of stay was three days. The Proserpine Regional Planning and Tourist Promotion Advisory Committee estimated that the value of tourists' spending to Proserpine for the year ended October 1962 was \$337,000, and that more than 32,000 tourists passed through the area, nearly half of them arriving by air.

Plans for the development of travel statistics

There has been a remarkable development in the volume and diversification of travel and tourist activity in Australia in recent years, accompanied by an increase in the numbers and types of people and organizations involved—both as users and as suppliers of tourist services and facilities. In consequence, considerable interest has arisen in the development of adequate measures of the various aspects of this subject. The Commonwealth Bureau of Census and Statistics has conducted surveys of motor vehicle usage and of interstate travel, and investigations are being made towards further development along these lines. The gradual development of passenger statistics so as to provide more information relative to tourist travel, particularly for rail and air transport, is also being planned.

Perhaps the most important development is the increasing involvement of State authorities in fact finding and in the analysis of tourist information. Some of the work being done has been referred to in previous paragraphs. Tourist authorities of some States have expressed the intention of undertaking local or State-wide surveys.

RESEARCH IN THE FIELD OF TRAVEL AND TOURISM

ANTA surveys

Travel research and surveys are comparatively undeveloped in Australia. At the national level, ANTA in the last four or five years has carried out some market research and survey studies, although a great deal remains to be done. Studies conducted by or for ANTA can be grouped as follows.

Research into existing or potential markets abroad. Field studies have been carried out in the United States of America, Britain and the Far East. They stem from the needs of ANTA's promotions division and overseas offices for data to guide their advertising, publications and public relations activities.

Research into the characteristics, attitudes and reactions of overseas visitors to Australia. In 1962-63 ANTA had a major study carried out regarding overseas visitors to Australia. From time to time it has carried out surveys on matters such as cruise passengers visiting Australia, spendings resulting from individual cruise ships calling at Australia, and the routes followed by overseas visitors' tours.

Surveys of aspects of Australia's attractions and travel and tourist industry plant. These studies have ranged from measures of accommodation growth and means of financing it to visitor shopping and souvenirs. The purpose of this work is to inform ANTA of the volume and quality of Australia's facilities in relation to the needs and preferences of existing and potential visitors from the main overseas markets.

ANTA also gathers information through overseas sources on aspects of international travel and tourism which have relevance to the Australian situation. It maintains a technical library at its Melbourne Head Office. A Research Bulletin is published six times a year, through which the results of ANTA'S research and survey work are disseminated.

Australian Tourist Industry Development Survey

During 1964 an Australian Tourist Industry Development Survey was undertaken by two New York firms for ANTA on behalf of the Commonwealth and State Governments. The

Report, entitled *Australia's Travel and Tourist Industry*, 1965, was published in July 1966 and covers many aspects of travel and tourism in Australia and their potential. The report states that Australia stands on the threshold of great opportunity in the field of international tourism and that it should meet the challenges provided by an expanding travel movement of Australians at home and the travel needs of a greatly increased flow of overseas visitors, and should establish policies and plan for the development of its tourist industry, destination areas and travel facilities. International travel to Australia is projected in this report to potential targets of 320,000 visitors by 1970 and 607,000 by 1975. Their spending in Australia could reach over \$120 million in 1970 and over \$206 million in 1975. The authors suggest that these estimates of spending, which exclude any allowances for spending by cruise ship passengers, are conservative. Accommodation needs within the next decade are projected at 46,600 additional rooms. The report indicates what it considers to be the more important requirements if substantial benefits are to be realized. Among them are the following.

Recognition by the Commonwealth and State Governments of the role of travel and tourism and of an adequate travel plant in the overall economy of the country, accompanied by increased recognition thereof by the public generally.

Determination of the roles of the Commonwealth Government and the State and Territory Governments in relation to each other and to the activities of the many business organizations and individuals engaged in the various segments of the industry.

Planning of, and financial encouragement for, additional accommodation to supply the needs of the steadily increasing numbers of domestic and overseas travellers.

Constant efforts towards reduction, as feasible, of international air fares from distant markets, particularly through special promotional fares.

Creation of special tourist fares within Australia, primarily by air, to encourage travel over circular routes designed to induce more travellers, domestic and overseas, to visit more of the continent.

Adoption of an intensive promotion programme in travel markets overseas, correlated with development of travel attractions and facilities in Australia.

Surveys by New South Wales Department of Tourist Activities

In 1965 the New South Wales Department of Tourist Activities appointed a research officer and initiated a pilot survey of the tourist industry at Port Macquarie. This was preliminary to the design of an effective survey for resort towns, conducted by means of questionnaires completed by tourists and information obtained from accommodation operators, retailers and others. The Department of Tourist Activities proposes to institute a series of surveys of movement and spending of tourists within the State.

Conclusion

To sum up, little research has been carried out so far in the field of travel and tourism in Australia. Perhaps because tourism in Australia is, by overseas standards, still at a comparatively unsophisticated stage of development, there is little emphasis on the use of market research and survey techniques by government tourist departments and private enterprise organizations. Only a few market research studies have been carried out in recent years, and there are few research officers engaged specifically in this subject, although some organizations have well set-up market research and planning departments carrying out continuing analyses of various aspects of their particular industry.

FUTURE PROSPECTS FOR TRAVEL AND TOURISM

Great hopes are held for the future of travel and tourism in Australia, since public demand for tourist goods and services is steadily increasing and there are no apparent signs of the limit being reached. Australia has, with much of the rest of the world, been participating in the last couple of decades in an extension of the travel market, both domestic and international, on an ever-broadening economic and social base.

The vast technological developments in transportation are continuing, and provide an exciting prospect for Australia in terms of its still rather remote geographical relationship to the rest of the world. By 1970, for instance, the aviation industry expects that the large sub-sonic 'jumbo-jets', or 'jet-buses', will be in service. These are designed to carry 490 economy or 378 mixed-class passengers, and will be faster than present jets. Economical operation may eventually be expected to make substantial fare reductions possible. The successors to these aircraft will be supersonic airliners flying at twice the speed of sound, with the capacity to halve present flying times to Australia.

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DIARY OF PRINCIPAL ECONOMIC EVENTS, 1965-66

The principal economic events in earlier years were shown in the following issues:

<i>Years</i>	<i>Year</i>	<i>Book No.</i>	<i>Pages</i>
1931 to 1938	.	33	. . 968-77
1939 to 1944	.	36	. . 1129-41
1945 to 1948	.	37	. . 1235-45
1949 to 1951	.	39	. . 1331-40
1952 to 1955	.	42	. . 1149-60
1956 to 1958	.	46	. . 1185-92
1958-59 to 1961-62	.	48	. . 1188-1200
1962-63	.	49	. . 1253-56
1963-64	.	50	. . 1283-88
1964-65	.	51	. . 1269-74

In the year 1965-66 the rate of economic progress was less than that of recent years.

In current prices gross national expenditure increased in 1965-66 by about 5 per cent compared with an increase of 14 per cent in 1964-65. Similarly, gross national product increased in 1965-66 by 4 per cent compared with 9 per cent in 1964-65. The smaller increase in gross national product in 1965-66 is largely a reflection of the fact that the drought in that year caused a substantial reduction in both volume and value of farm output. However, the gross operating surplus of companies in the trading enterprise sector increased by only 2 per cent compared with 10 per cent in 1964-65. The Consumer Price Index, the components of which relate to a substantial portion of total consumption expenditure, increased by 3.7 per cent between 1964-65 and 1965-66. This, together with other available but incomplete price and cost data, indicates that the average increase in prices of all items included in gross national expenditure may have approached 4 per cent in 1965-66.

There was an increase of \$21 million in international reserves in 1965-66 and exports of goods and services increased by 3 per cent compared with an increase of 4 per cent in imports.

An increase in retail sales (excluding motor vehicles, parts, petrol, etc.) of 5 per cent was accompanied by a decrease in outstanding balances in transactions financed by instalment credit from \$1,445.4 million in June 1965, to \$1,427.2 million in June 1966, and an increase of \$213.9 million in loans, advances, and bills discounted by Major Trading Banks. At the same time the combined trading bank and savings bank deposits reached \$10,562 million. The liquid assets and Government securities ratio of Major Trading Banks increased from 22.2 per cent in June 1965 to 24.2 per cent in June 1966, while the amount in the banks' Statutory Reserve Deposit Accounts with the Reserve Bank declined from \$656 million in June 1965 to \$473 million in June 1966 as a result of releases of funds to assist the trading banks to continue lending and the establishment of a farm development fund of \$50 million to assist primary producers.

There was considerable activity in the iron ore mining industry during the year. New contracts were made by a number of companies operating in Western Australia and Tasmania for export of ore mainly to Japan. Bauxite deposits were also the centre of considerable activity, and new deposits of nickel and silver-lead were reported. Oil and gas exploration continued and resulted in discoveries of commercial quantities of gas in central Australia and off-shore in Victoria and oil at Barrow Island in Western Australia and in Queensland.

Average earnings increased by 3.2 per cent between June 1965 and June 1966 compared with an increase of 7 per cent in the previous year. The judgment of the Commonwealth Conciliation and Arbitration Commission in the 1966 Basic Wage Case handed down in July 1966 granted an increase of \$2 a week in the basic wage.

The continuing drought caused a substantial reduction in both volume and value of farm output. Rainfall was inadequate over large areas of southern Queensland and northern and western New South Wales, and the Commonwealth made substantial amounts of money available for drought relief. Livestock numbers decreased in New South Wales and Queensland from 96 million sheep and lambs and 12 million cattle to 79 million and 11 million respectively during the year ended 31 March 1966.

The levelling-off in building activity which was evident at the end of 1964-65 developed into a downward movement in the first half of 1965-66 and despite a renewed upward trend in the second half of the year the number of new houses and flats commenced decreased from 116,700

in 1964-65 to 107,200 in 1965-66. In the motor industry, too, there was a falling-off during the year. Registrations of new motor vehicles decreased markedly after August 1965 and have since been consistently at a lower level than for some years past. The reduced activity in these key industries had some effect on employment levels, but although there was an increase of 6,402 in the number of persons in receipt of unemployment benefit (19,058 at the end of June 1966), total civilian employment (other than rural) continued to increase (from 3,604,000 in June 1965 to 3,704,000 in June 1966, an increase of nearly 3 per cent).

21 July. Increase of 6.6 per cent in shipping freight charges for cargoes from Australia to Europe announced. To operate from 1 September (wool), 1 October (general cargo), and 1 February (fruit).

22 July. Broken Hill Pty. announced \$80 million expansion programme over next two years for Port Kembla steel works.

4 August. Commonwealth cash loan of \$70 million opened, issued with yields of 5 per cent for 2 years 9 months, 5.13 per cent for 9 years 6 months, and 5.25 per cent for 19 years 9 months; over-subscribed by \$35 million.

17 August. Commonwealth Budget for 1965-66 introduced into House of Representatives. In 1964-65 receipts of the Consolidated Revenue Fund were \$4,418.2 million, and expenditure (excluding payments of \$222.8 million to the Loan Consolidation and Investment Reserve) amounted to \$4,195.4 million. The main items of revenue (1963-64 figures shown in parenthesis) were: income taxes, \$2,295.6 million (\$1,874.4 million); excise duties, \$631 million (\$582.2 million); customs duties, \$268.8 million (\$232.8 million); sales tax, \$362.8 million (\$325.2 million); and pay-roll tax, \$150.1 million (\$136.4 million). The main items of expenditure were: payments to or for the States, \$976.8 million (\$896.2 million); social and health services, \$890.4 million (\$832.6 million); defence services \$609.0 million (\$443.4 million); war and repatriation services, \$239.0 million (\$225.4 million); capital works services, \$387.0 million (\$352.6 million). The Budget for 1965-66 provided for an estimated expenditure of \$4,987.9 million, to be provided from Consolidated Revenue Fund.

Australian and New Zealand Governments confirmed agreement made for limited free trade area which will apply to about 60 per cent of the trade between the two countries. (Approved by G.A.T.T. on 6 April 1966.)

26 August. Order placed for building of Macchi jet trainers for R.A.A.F. in Australia. Government announced plans for extending production by gaining export contracts.

31 August. 1965-66 Budget introduced into Tasmanian House of Assembly. The transactions of the Consolidated Revenue Fund in 1964-65 resulted in a deficit of \$1,618,000. Receipts of the Consolidated Revenue Fund totalled \$74,846,000 and expenditure \$76,465,000. For 1965-66 it was estimated that expenditure would be \$84,308,000 and revenue \$82,948,000, leaving a deficit of \$1,360,000.

Contract for \$8 million let for construction of standard gauge railway between Merredin and Koolyanobbing (Western Australia).

1 September. 1965-66 Budget introduced into South Australian House of Assembly. In 1964-65 revenue amounted to \$222,182,000 and expenditure to \$224,804,000, leaving a deficit of \$2,622,000. For 1965-66 it was estimated that revenue would be \$239,954,000 and expenditure \$243,036,000, leaving a deficit of \$3,082,000.

Minister for Territories announced plans for setting up Development Bank in Papua-New Guinea with capital of \$2 million.

8 September. Tariff Board report on crude oil issued and consequential Government policy decisions announced. (See the chapter Mineral Industry, page 1050.)

15 September. 1965-66 Budget introduced into Victorian Legislative Assembly. In 1964-65 revenue and expenditure amounted to \$480,668,000. The 1965-66 Budget provided for expenditure and revenue of \$515,788,000. Railway operating expenses and income were estimated at \$106,579,000 and \$105,200,000 respectively, and it was anticipated that the Railway Equalization Account would have to provide the balance of \$1,379,000.

Australian consortium, in association with Swiss group, granted lease of Gove (Northern Territory) bauxite deposits. Alumina plant with 300,000 ton capacity to be built by 1971.

20 September. Visiting trade mission from Taiwan made deals exceeding \$6 million for purchase of primary produce and sale of textiles and processed foodstuffs.

21 September. Trade agreement signed in Seoul between Australia and Korea. Report of Vernon Committee of Economic Enquiry tabled in House of Representatives.

22 September. 1965-66 Budget introduced into New South Wales Legislative assembly. During 1964-65 the transactions of the Consolidated Revenue Fund, Railways, Metropolitan and Newcastle Transport Services and Maritime Services Board resulted in a deficit of \$9,162,000 (total revenue overall was \$730,691,000, total expenditure \$739,853,000). After providing for

debt charges, there was a surplus of \$176,000 on the Department of Railways, a deficit of \$4,938,000 on the Metropolitan and Newcastle Transport Services, and a surplus of \$72,000 from the operations of the Maritime Services Board. The 1965-66 Budget provided for an overall deficit of \$8,092,000 (revenue \$763,007,000, expenditure \$771,099,000). After meeting debt charges, it was estimated that there would be a deficit of \$219,000 on the Railways, a deficit of \$6,356,000 on the Metropolitan and Newcastle Transport Services, and a surplus of \$43,000 on the Maritime Services Board.

30 *September*. 1965-66 Budget introduced into Queensland Legislative Assembly. In 1964-65 receipts of the Consolidated Revenue Fund amounted to \$267,139,312 and expenditure to \$271,215,060. For 1965-66 it was estimated that revenue would amount to \$290,090,000 and expenditure to \$293,082,116.

5 *October*. 1965-66 Budget introduced in Western Australian Legislative Assembly. Financial transactions for the year 1964-65 resulted in a deficit of \$4,697,050. For 1965-66 it was estimated that expenditure would be \$203,628,000 and revenue \$201,982,000, leaving a deficit of \$1,646,000.

Australia agreed to an increase of \$US 100 million in its quota to the International Monetary Fund.

16 *October*. Trade agreement signed in Moscow between Australia and U.S.S.R. Australian airlines announced 6 per cent increase in air fares and cargo rates in Australia and New Guinea.

21 *October*. Australia took part in discussion on proposed establishment of an Asian Development Bank to promote economic development in the ECAFE region. Australian proposed contribution \$75 million.

9 *November*. Commonwealth \$US 25 million loan opened in New York, issued at 99.75 per cent with interest of 5.75 per cent and a period of 20 years. It was fully subscribed, predominantly from European sources. The proceeds were applied to the 1965-66 programme for works and housing.

11 *November*. Commonwealth cash loan of \$100 million opened, issued with yields of 5 per cent for 2 years 6 months, 5.13 per cent for 9 years 9 months, and 5.25 per cent for 22 years; over-subscribed by \$33 million.

16 *November*. Economic sanctions imposed on Rhodesia.

25 *November*. New South Wales Government provided for making of long-term low interest loans to primary producers in necessitous circumstances as a result of the drought.

26 *November*. Housing Loans Insurance Corporation commenced operations in all States.

1 *December*. Australian Aluminium Company Ltd. announced plans for building \$22 million aluminium smelter in Newcastle area.

5 *December*. New reserves of hard coking coal, estimated at 260 million tons of recoverable coal, discovered on south coast of New South Wales.

6 *December*. Reserve Bank released \$48 million from statutory reserve deposit accounts to enable banks to maintain lending.

9 *December*. Wool-growers voted against referendum on proposed reserve price scheme for wool sales (see chapter Rural Industry, page 945.)

22 *December*. American company awarded \$15 million contract for building Murray 2 project in Snowy Mountains scheme.

1 *January*. Commonwealth Special Bonds Series 'A' reached final maturity. Out of the \$44 million total debt, \$33 million was converted to Special Bonds Series 'L' and the remainder was redeemed.

13 *January*. It was announced by the Reserve Bank that female employees were now able to keep their jobs after marriage and could be given paid leave when having babies.

28 *January*. Announcement made that two roll-on, roll-off vessels for Australian National Line are to be built in Brisbane.

14 *February*. Australia adopted dollar-cent system of decimal currency (see chapter Private Finance, page 671).

Special Bonds Series 'M' issued at par with interest rising from 4.5 to 5.25 per cent and optional redemption prices at par to 103 per cent at maturity. Commonwealth Treasury Note terms adjusted, price 98.87 to yield 4.58 per cent at 13 week maturity. Income tax rebate of 10c on each \$1 of Treasury Note income was withdrawn.

18 *February*. Commonwealth cash loan of \$100 million opened, issued with yields of 5 per cent for 3 years, 5.13 per cent for 9 years 9 months, and 5.25 per cent for 23 years 9 months; over-subscribed by \$74 million.

- 22 *February*. Northern Territory Administrator announced that world's largest cattle station, Alexandria Downs, was to be subdivided following a land resumption. Resumption will provide for three new cattle stations each of over 1,000 square miles, and a fauna and flora reserve of 4,000 square miles.
- 24 *February*. Commonwealth Government offered long-term loans totalling \$20 million over next 5 years to increase planting rate on Government softwood plantations so as to make Australia ultimately self-sufficient in timber.
- 7 *March*. Commonwealth Arbitration Commission Award (to become operative December 1968) provided for pay and working conditions of Aboriginal stockmen in Northern Territory to be on same basis as for white employees.
- 8 *March*. Prime Minister announced that Government would underwrite loans to farmers for developmental purposes totalling \$50 million repayable over 12 to 15 years at less than 5 per cent interest.
- 15 *March*. Oil flowed from well 27 miles off-shore from Lakes Entrance (Victoria).
- 16 *March*. 150,000 square miles of grazing lands in Queensland leased to United States syndicate. Commonwealth Government offered additional loan finance of \$15 million to States to give stimulus to their housing programme.
- 21 *March*. Ratification of the Commonwealth's raising of a private loan of \$US 54 million in New York for financing the purchase of aircraft and parts by Qantas Empire Airways and Australian National Airlines Commission (T.A.A.). The loan is repayable in half-yearly instalments from 1968 to 1974, with interest rates from 5 to 5.75 per cent.
- 22 *March*. Maritime Services Board announced plans for modernizing New South Wales ports, involving estimated expenditure of \$166 million (Sydney \$96 million, Newcastle \$58 million, other ports \$12 million) over next 10 years.
- 30 *March*. New South Wales Parliamentary Salaries Act gave Members of the Legislative Council a salary (\$2,040 a year) for the first time (as distinct from the expense 'allowance' previously payable) and increased salaries of Members of the Legislative Assembly by \$1,540 a year.
- 1 *April*. Reserve Bank of Australia released \$125 million of reserves to help establish the \$50 million Farm Development Loan Fund (*see* 8 March) and to maintain bank liquidity anticipated as a result of deficit in balance of payments.
- 8 *April*. Large nickel deposit discovered near Kalgoorlie (Western Australia).
- 11 *April*. \$US 100 million borrowed by Commonwealth Government for current defence programme.
- 12 *April*. Wide range of products of less developed countries admitted from this date at preferential rates of duty, also traditional cottage industry products of these countries to be duty free.
- 10 *May*. Commonwealth cash loan of \$75 million opened, issued with yields of 5 per cent for 3 years 2 months, 5.13 per cent for 9 years 6 months, and 5.25 per cent for 21 years 6 months; under-subscribed by \$13 million.
- 26 *May*. Australia's third commercial oil-field declared at Barrow Island, 50 miles off Western Australian coast.
- 2 *June*. First shipment of iron ore from Mount Goldsworthy field left Port Hedland (Western Australia).
- 16 *June*. Loan Council met in Canberra and approved borrowing programme for 1966-67 of \$645 million (\$525 million for State Works, \$120 million for Commonwealth-State Housing).
- 30 *June*. Commonwealth Special Cash Loan of \$169 million issued with yields of 5 per cent for 3 years 1 month, 5.13 per cent for 9 years 5 months, and 5.25 per cent for 21 years 4 months.
Average increase of \$3.50 a ton for phosphate rock delivered to the superphosphate industry announced by British Phosphate Commissioners.

1966-67

- 8 *July*. Commonwealth Arbitration Commission handed down decision in 1966 Basic Wage Case. Basic wage increased by \$2 a week. Margins to be reviewed and decision made later.

CHRONOLOGICAL TABLE

CHRONOLOGICAL TABLE OF CHIEF EVENTS IN AUSTRALIA SINCE 1955

NOTES. In issues of the Year Book up to No. 48 (*see* No. 48, page 1201) this table covered events back to the establishment of settlement in Australia in 1788. Later issues up to No. 50 (*see* No. 50, page 1289) covered events back to 1945. This issue covers the years 1955 to 1965.

For each earlier year this Table rarely contains more than two or three items; for recent years, however, in order to provide a wide cover of events, etc., it includes a much greater number. Both the nature of the Table and considerations of space render necessary a continual reduction in these items, and for more information the reader should therefore consult earlier issues.

- 1955 First power generated by Snowy Mountains Hydro-electric Authority. Australian population reached 9,000,000. Cocos (Keeling) Islands became Territory under authority of Commonwealth.
- 1956 Amendment to Conciliation and Arbitration Act altered the structure of the arbitration machinery by separating judicial functions from conciliation and arbitration functions.
- 1957 High Court ruled that interstate vehicles could not be compelled to register in New South Wales, but upheld validity of Victorian tax on commercial vehicles, including those engaged in interstate trade, imposed solely for the maintenance of roads. National Capital Development Commission set up to co-ordinate development of Canberra as centre of government.
- 1958 Prime Minister officially opened Australia's first nuclear reactor at Lucas Heights, near Sydney. Christmas Island (Indian Ocean) transferred to Australian Administration.
- 1959 Appointment of Decimal Currency Committee to investigate advantages and disadvantages of a decimal currency. Annual Holidays Act, 1944-1958 provided for three weeks annual holiday for all New South Wales workers. Population reached 10,000,000.
- 1960 Provision made for Social Service benefits to be paid to Australian Aborigines. *Commonwealth Banks Act* 1959 and *Reserve Bank Act* 1959 proclaimed (*see* page 681). Goods comprising 90 per cent of Australia's current imports exempted from licensing provisions. National Service training suspended. Report of Decimal Currency Committee presented to Parliament—decimal currency system favoured. Changes made in Constitution of Papua and New Guinea providing for an increase in number of indigenous members of Legislative Council to eleven, including six elected by indigenes. Commonwealth Government announced special economic measures designed to counter inflationary trend and safeguard overseas funds.
- 1961 Australia's first guided missile base established at Williamstown (New South Wales). *Commonwealth Matrimonial Causes Act* 1959 unifying State Acts, became operative (*see* page 533). Commonwealth Government announced tax concessions to exporters for promotional expenses in developing overseas export markets. Oil discovered in south-west Queensland. Australian population census taken. Iron ore deposits estimated at 1,800 million tons discovered at Pilbara (Western Australia).
- 1962 Western Australian Premier signed agreement with American companies for 21-year lease to extract and export up to 15 million tons of iron ore from Pilbara deposits. Commonwealth and Western Australian Electoral Acts amended to provide for votes for Aborigines. Work began on standardization of rail gauge from Kwinana to Kalgoorlie (Western Australia). Commonwealth provided \$3,530,000 grants to States for assistance to universities in development of training facilities for medical students in teaching hospitals. First production of bauxite ore from Weipa deposits. Aborigines exercised voting rights in Northern Territory for first time.
- 1963 Commonwealth Committee of Economic Enquiry appointed to investigate broad aspects of the Australian economy. Approval given to agreement for United States to establish, maintain and operate a naval communications station at North West Cape, Western Australia. Western Australian Government signed \$156 million contract for the establishment and development of a new iron and steel industry in the State. Australia signed Nuclear Test Ban Treaty. Uniform *Marriage Act* 1961 came into effect. Decimal currency legislation introduced into House of Representatives (*see* page 672). Australian population reached 11 million.

- 1964 Agreement concluded with United States of America on establishment of meteorological research station at Pearce (Western Australia) R.A.A.F. Base. Australian Defence Mission sent to Malaysia. R.A.N. Destroyer *Voyager* sunk in collision off Jervis Bay with loss of eighty-two lives. First general election from common roll in Papua-New Guinea. New South Wales Government employees granted four weeks annual leave. Australia represented as full regional member of ECAFE for the first time at 20th Conference in Teheran. Commonwealth Government announced programme of assistance for schools for teaching of science. Commonwealth Bureau of Roads to be set up to make a full and continuous study of the roads problem. Moonie to Brisbane oil pipeline opened and Australia's first commercial oil production started. Additional naval, army and air-force units made available for service in Malaysia. Advance party of army engineers left for Sabah (North Borneo). Northern Territory Legislative Council passed legislation removing discrimination against Aborigines. Army sent instructors and advisers to Vietnam. First applications lodged for Commonwealth Home Savings Grants. Australia joined eighteen other members of International Telecommunications Union in setting up an international communications satellite system. United States and Australian Governments agreed to establish joint educational foundation to succeed Fulbright Scheme. Commonwealth Government approved construction of \$2 million tracking station at Gove in the Northern Territory for ELDO (see page 1062). Construction began of new \$8 million jet airport at Tullamarine, Victoria, to handle international air traffic. Northern Territory *Social Welfare Ordinance* 1964 (see page 1090) repealed *Welfare Ordinance* 1953-1963 and provided for assistance without control for any person socially or economically in need of it. Sydney and Cornell (United States of America) Universities pooled resources to set up joint Astronomy Centre, the largest of its kind in the world. New South Wales State Electricity Commission began construction of \$200 million power station at Liddell. Commonwealth Government established licensing system for intrastate civil aviation. Australian forces saw action in Malaysia. Prime Minister announced expansion of defence provisions involving additional defence expenditure of \$2,440 million over three years, resumption of National Service Training, and establishment of special Reserve Forces (see page 1054). *National Service Act* 1964 passed. Commonwealth Government allowed export of iron ore to Japan from fields in Western Australia (see page 1048). Legislation introduced in New South Wales Parliament to establish University of Newcastle (see page 603). First awards of Commonwealth Scholarships to secondary school students.
- 1965 *January*. New passenger car ferry, the *Empress of Australia*, commissioned for Sydney-Hobart run. Two more roll-on roll-off cargo ships ordered by Australian Shipping Commission.
- February*. Full High Court judgment on intra-state airlines case held that New South Wales Air Transport Act requiring intra-state services to hold a State licence was valid, but also that four out of five relevant Commonwealth regulations were valid, so that airlines needed Commonwealth licence as well. Australia signed major defence agreement to buy \$312 million of aircraft and other military equipment in next three years. Royal Australian Mint opened.
- March*. First ballot for National Service call-up. Premier of Singapore made short visit for talks with Commonwealth and State Ministers and senior officials. Martin Report on tertiary education tabled in House of Representatives (Commonwealth will provide grants, subject to matching grants by States, rising from \$5 million to \$50 million over six-year period for development of technical education at tertiary level and will award 1,000 additional scholarships, to total of 6,000).
- April*. Australia changed to metric system for dispensing of medicine.
- May*. Australia received orders for supply of \$12 million Ikara anti-submarine weapons system to Royal Navy. New steelworks opened at Whyalla (South Australia). 1st Battalion, Royal Australian Regiment, embarked for service in South Vietnam.
- June*. Australia agreed to establishment of Legislative Council for Nauru and payment of substantially higher phosphate royalties. Victorian fodder shipped to New South Wales to relieve stock losses in worst drought for sixty-three years.
- July*. First recruits under new National Service call-up entered camp. Minister for Defence announced establishment of a United States radio research base at Amberley air-force base (Queensland). First R.A.A.F. Squadron equipped with Mirage jet fighters formed.
- August*. Australia gave separate diplomatic recognition to Singapore. Third Commonwealth and Empire Law Conference held in Sydney. \$8 million contract let for construction of Merredin-Koolyanobbing (Western Australia) standard gauge railway.
- September*. Report of Vernon Committee of Economic Enquiry tabled in House of Representatives. Lord Casey took office as Governor-General. Australia's first woman judge appointed (to South Australian bench). Australia's first submarine for 34 years launched at Greenock, Scotland.

- 1965 *October.* House of Representatives passed Stevedoring Industry Act (*see* page 443). Sir Robert Menzies appointed by Queen to post of Lord Warden of the Cinque Ports (invested July 1966). First trade agreement between Australia and U.S.S.R. signed in Moscow.
- November.* President of Malagasy Republic arrived in Australia for six-day visit. One of world's largest seismological installations was set up in Northern Territory over a period of time by United Kingdom Atomic Energy Authority in association with Australian National University. Economic sanctions imposed on Rhodesia. Mills Cross radio telescope opened by Prime Minister near Hoskinstown (N.S.W.). Housing Loans Insurance Corporation commenced operations in all States. Winston Churchill Memorial Trust announced award of first forty-eight Churchill fellowships.
- December.* Australian Aluminium Co. Ltd. announced plans for building \$22 million smelter in Newcastle district. Largest Australian built ship, the 49,000 ton bulk ore carrier *Darling River*, launched. First section of Sydney-Newcastle expressway opened as toll-road by New South Wales Minister for Highways.
- 1966 *January.* United States Ambassador-at-large arrived in Australia for talks on Vietnam War. Sir Robert Menzies announced his retirement as leader of Liberal Party. Mr. Harold Holt sworn in as Prime Minister. Dame Annabelle Rankin included in new ministry, first woman to administer a Government department in Australia. Charles, Prince of Wales, arrived in Australia for period of schooling at Timbertop school, Victoria.
- February.* Ten o'clock closing of hotels introduced in Victoria. Australia adopted dollar—cent system of decimal currency. United States Vice-President, Mr. Humphrey, made two-day visit to Australia.
- March.* Commonwealth Arbitration Commission gave judgment that by December 1968 pay and working conditions of Aboriginal stockmen in Northern Territory were to be on same basis as for white employees. Immigration laws amended to provide for relaxation of restrictions on entry of persons of non-European race (*see* page 220). Prime Minister announced the replacement of the Australian Army battalion in Vietnam by an Army Task Force of two battalions and support units. H.M.A.S. *Perth*, Australia's new guided missile destroyer, arrived in Sydney. Parliament passed Act giving member for Australian Capital Territory full voting rights. Oil flowed from well 27 miles off-shore from Lakes Entrance (Victoria). Australia and Mexico agreed to exchange of Ambassadors. New South Wales Parliamentary salaries increased.
- April.* First National Service personnel left for Vietnam. Prime Minister made four-day visit to Vietnam. All National Servicemen posted overseas to have vote at Commonwealth elections.
- May.* Europa 1, first ELDO rocket, launched at Woomera. First National Serviceman in Australian army ever to die on foreign soil killed in action in Vietnam. Australia's third commercial oilfield declared at Barrow Island, 50 miles off Western Australian coast.
- June.* World's largest solar still, and first to be used for town water supply in Australia, set up at Coober Pedy (South Australia). First shipment of iron ore from Mount Goldsworthy field left Port Hedland (Western Australia). Australia joined eight other Asian and Pacific nations in forming Asian and Pacific Cooperation Council (ASPAC). Loan Council and Premiers' Conference met at Canberra. Leader of the Federal Opposition wounded by shot while leaving political meeting. Tighter security advocated for safety of politicians. SEATO Conference held in Canberra. Prime Minister left on mission to United States and United Kingdom. ELDO decided to transfer base to French Guiana. 1966 Census taken. ANZUS foreign ministers held Conference in Canberra. Australian and New Zealand Prime Ministers held Conference in Canberra.
- July.* Commonwealth Arbitration Commission increased basic wage by \$2 a week. Margins to be reviewed and decision made later.

STATISTICAL SUMMARY: AUSTRALIA

In most cases where figures are available back to 1861, these were shown in Year Book No. 39, pages xxviii-xxix.

The statistics in this summary relate in general to the periods shown in the table headings; where the statistics relate to other periods, this is indicated in footnotes.

		Year ended 30 June—							
		1902	1912	1922	1932	1942	1952	1962	1966
DEMOGRAPHY(a)—									
Population(b)	{ '000 males	2,005	2,382	2,799	3,333	3,599	4,311	5,355	5,784
	{ '000 females	1,820	2,192	2,712	3,220	3,545	4,217	5,249	5,695
	{ '000 persons	3,825	4,574	5,511	6,553	7,144	8,528	10,604	11,479
Natural increase	'000	56.6	74.3	82.1	61.9	63.3	111.5	151.0	123.1
Net oversea migration	'000	3.0	74.4	17.5	-10.1	5.2	111.4	61.5	104.9
Marriages	{ '000	28	39	47	39	75	77	77	94
	{ Rate(c)	7.3	8.8	8.6	6.0	10.6	9.2	7.3	8.2
Divorces(d) and judicial separations	'000	398	509	1,490	1,969	3,351	7,330	6,750	8,534
	{ '000	103	122	136	119	135	193	240	223
	{ Rate(c)	27.2	27.2	25.0	18.2	18.9	23.0	22.9	19.6
Deaths	'000	46	48	54	57	71	82	89	100
	{ Rate(c)	12.2	10.7	9.9	8.7	10.0	9.7	8.5	8.8
	{ '000	10.7	8.4	9.0	5.0	5.3	4.9	4.7	4.1
	{ Rate(e)	103.6	68.5	65.7	42.1	39.7	25.2	19.5	18.5
Infant deaths	'000								
WAGES (ADULT MALES)(b)—									
Minimum weekly wage rate index numbers(f)		n.a.	n.a.	n.a.	n.a.	38.5	85.8	129.5	144.1
PRIMARY AND SECONDARY INDUSTRIES—									
Agricultural(g)—									
Wheat	{ Area mill. acs.	5.1	7.4	9.7	14.7	12.0	10.4	14.7	(i)
	{ Yield mill. bus.	39	72	129	191	167	160	247	16.8
	{ Av. yield bus.	7.5	9.6	13.3	12.9	13.9	15.4	16.8	258
Oats	{ Area '000 acs.	461	617	733	1,085	1,460	2,365	3,097	15.4
	{ Yield mill. bus.	9.8	9.6	12.1	15.2	22.3	34.5	55.1	3,497
	{ Av. yield bus.	21.2	15.5	16.6	14.0	15.3	14.6	17.8	70.0
Barley	{ Area '000 acs.	75	116	299	342	784	1,118	2,383	20.0
	{ Yield mill. bus.	1.5	2.1	6.1	6.3	18.0	21.9	41.5	2,064
	{ Av. yield bus.	20.4	17.7	20.4	18.4	23.0	19.6	17.4	49.3
Maize	{ Area '000 acs.	295	340	305	269	301	170	211	23.9
	{ Yield mill. bus.	7.0	8.9	7.8	7.1	7.4	4.0	7.3	212
	{ Av. yield bus.	23.9	26.3	25.7	26.2	24.7	23.7	34.7	6.9
Hay	{ Area '000 acs.	1,688	2,518	2,995	2,635	2,758	1,549	2,274	32.4
	{ Yield '000 tons	2,025	2,868	3,902	3,167	3,575	2,345	2,693	2,793
	{ Av. yield tons	1.20	1.14	1.30	1.20	1.30	1.51	1.62	4,963
Potatoes	{ Area '000 acs.	110	130	149	145	99	118	94	1.78
	{ Yield '000 tons	323	301	388	397	333	509	526	88
	{ Av. yield tons	2.94	2.31	2.60	2.74	3.35	4.31	5.57	508
Sugar-cane(h)	{ Area '000 acs.	87	101	128	242	255	282	387	5.78
	{ Yield '000 tons	1,368	1,682	2,437	4,213	5,154	5,327	9,577	470
	{ Av. yield tons	15.7	16.7	19.0	17.4	20.3	18.9	24.8	5,070
Vineyards	{ Area '000 acs.	64	61	92	115	130	136	133	32.0
	{ Wine mill gals.	5.3	5.0	8.5	14.2	15.6	35.3	41.7	139
Total area of crops mill. acs.		8.4	12.1	15.4	21.2	20.5	19.7	29.6	38.6
Pastoral, dairying, etc.—									
Livestock(i)	{ horses mill.	1.6	2.3	2.4	1.8	1.6	0.9	0.6	0.5
	{ cattle "	8.5	11.8	14.4	12.3	13.6	14.9	18.0	18.0
	{ sheep "	72	97	86	111	125	118	158	157
	{ pigs "	0.9	1.1	1.0	1.2	1.4	1.0	1.7	1.7
Wool(j)	{ mill. lb.	(a) 539	(a) 798	723	1,007	1,167	1,080	1,699	1,639
Butter	{ '000 tons	(a) 46	(a) 95	(a) 119	175	168	135	198	205
Cheese	" "	(a) 5.3	(a) 7.1	(a) 14.6	14.0	30.1	40.6	55.7	58.0
Meat(k)—									
Beef and veal	{ '000 tons			339	350	534	582	791	922
Mutton and lamb	" "	n.a.	n.a.	218	307	372	282	587	584
Pigmeat	" "			51	70	121	85	120	133
Total meat	" "	n.a.	n.a.	608	727	1,027	949	1,498	1,639

(a) Year ended previous December. (b) At 31 December of previous year. (c) Number per 1,000 of mean population. (d) Decrees made absolute, including decrees for nullity of marriage. (e) Number per 1,000 live births. (f) New series. Base: 1954=100. Excludes rural industry. (g) Season ended in year shown. (h) Cane cut for crushing. (i) At 31 December of previous year for years to 1942, at 31 March thereafter. (j) In terms of greasy. (k) Carcass weight in terms of fresh meat. (l) Except for wheat, crop figures are for 1964-65.

See headnotes on page 1192

	Year ended 30 June—							
	1902	1912	1922	1932	1942	1952	1962	1966
PRIMARY AND SECONDARY INDUSTRIES—								
<i>continued</i>								
Minerals(a)(b)—								
Copper(c) . . . '000 tons	n.a.	n.a.	n.a.	13.5	20.9	18.1	95.6	90.8
Gold(c) . . . '000 fine oz.	3,300	2,484	758	595	1,497	896	1,076	877
Lead(c) . . . '000 tons	n.a.	222.0	57.7	162.6	275.5	212.0	269.7	355.2
Zinc(c) . . . " "	(d)	190.3	20.7	97.5	170.0	189.2	311.2	347.6
Black coal . . . mill. tons	6.9	10.5	12.8	8.4	14.2	17.6	24.0	31.4
Brown coal . . . " "	..	(d)	0.1	2.2	4.6	7.8	16.3	20.7
Forestry—								
Sawn output of Aust. grown timber mill. sup. ft	(a) 452	(a) 605	590	237	914	1,393	1,352	1,471
Factories—								(m)
Number of factories . . . '000	(e)	14.5	18.0	21.7	27.0	45.8	58.5	61.0
Persons employed . . . " "	(e)	312	379	337	725	978	1,121	1,269
Salaries and wages paid . . . \$m	(e)	56	136	112	360	1,224	2,286	2,994
Net value of production—								
Chemicals, etc. . . . \$m	n.a.	2.2	6.4	15.8	59.6	127.4	364.4	503.9
Industrial metals, etc. . . . " "	n.a.	24.0	47.2	45.6	239.8	826.2	1,770.3	2,484.7
Textiles, etc. . . . " "	n.a.	15.0	38.4	13.8	42.0	113.2	211.2	279.4
Clothing " "	n.a.	15.0	38.4	22.2	47.2	162.2	252.4	301.8
Food, etc. " "	n.a.	23.6	54.4	57.4	106.4	282.2	595.5	756.9
Paper, etc. " "	n.a.	8.4	18.0	19.2	34.2	136.4	326.9	426.7
All groups " "	58.2	95.0	225.0	222.0	633.0	2,049.8	4,394.6	5,897.1
Value of plant and machinery	n.a.	62.8	156.2	243.0	338.4	825.0	3,052.0	3,766.3
Value of land and buildings	n.a.	65.0	134.6	213.2	312.6	720.4	2,809.6	3,508.0
Net value of production(f)—								
Agriculture \$m	47.6	77.6	163.8	99.4	128.0	493.4	733.0	978.8
Pastoral " "	54.4	105.4	150.2	86.0	170.8	801.0	962.7	1,221.3
Dairying " "	15.2	32.2	70.6	45.2	68.6	207.6	273.0	360.7
Poultry " "	4.0	8.0	18.0	11.4	13.0	63.0	49.7	50.9
Bee-farming " "	0.2	0.2	0.2	0.2	0.8	1.6	3.2	4.1
Total, rural " "	121.4	223.4	402.8	242.2	381.2	1,566.6	2,021.6	2,615.8
Trapping " "	n.a.	n.a.	n.a.	3.0	10.0	13.4	11.8	13.1
Forestry " "	5.6	9.6	18.2	7.8	20.4	75.8	95.2	111.1
Fishing and whaling " "	..	2.2	2.8	2.8	3.6	11.4	28.6	39.0
Mining and quarrying " "	44.0	46.6	40.0	27.0	66.8	194.4	274.5	397.8
Total, non-rural " "	49.6	58.4	61.0	40.6	100.8	295.0	410.1	561.0
Total, primary " "	171.0	281.8	463.8	282.8	482.0	1,861.6	2,431.7	3,176.9
Factories " "	58.2	95.0	225.0	222.0	633.0	2,049.8	4,394.6	5,897.1
Grand total " "	229.2	376.8	688.8	504.8	1,115.0	3,911.4	6,826.4	9,073.9
BUILDING—								
New houses and flats completed								(m)
No. '000	..	..	..	..	(l) 15.4	80.1	86.3	112.6
Value \$m	..	..	..	..	(l) 29.0	354.0	593.2	823.0
OVERSEA TRADE—								
Imports \$m f.o.b.	(a) 76	(a) 122	188	104	348	2,106	1,769	2,939
Exports " "	100	158	256	216	338	1,350	2,155	2,726
Principal exports(g)—								
Wool { mill. lb. (h)	529	734	946	903	938	1,036	1,460	1,552
Wheat { \$m f.o.b.	30	52	96	64	116	646	746	786
Flour { '000 tons	543	1,477	2,677	3,413	598	1,685	5,442	5,072
Butter { \$m f.o.b.	5.6	19.2	57.2	38.4	9.2	110.6	284.8	263.7
Hides and skins \$m f.o.b.	97	176	360	611	414	789	579	391
Meats { '000 short tons	1.2	2.8	11.0	7.6	8.4	66.0	34.8	26.0
Fruit(i) { \$m f.o.b.	35	102	127	202	130	25	175	168
Sugar { mill. lb.	2.8	9.2	16.0	20.6	16.2	9.2	47.0	50.0
Gold { \$m f.o.b.	2.6	6.4	6.2	4.6	12.0	34.2	64.4	88.5
Silver and lead(j) \$m f.o.b.	5.2	8.6	11.0	12.8	28.0	71.0	179.4	287.9
Ores and concentrates(k) " "	0.4	1.0	6.0	9.6	8.0	39.0	71.2	105.0
	(d)	(d)	(d)	5.0	5.2	13.8	67.8	93.9
	28.6	24.0	7.0	23.8	18.4	14.0	18.0	24.4
	4.6	6.4	5.4	5.8	14.8	64.2	47.0	90.7
	(d)	74	1.6	0.4	2.6	34.0	40.4	72.1

(a) Year ended previous December. (b) Breaks in the continuity of the series occurred in 1931 and 1951. (c) Mine production, i.e. metal content of minerals produced. (d) Less than .05. (e) Owing to variation in classification, effective comparison is impossible. (f) Gross value from 1901 to 1921-22. Prior to 1922 figures are for years ended previous December. (g) Australian produce except gold, which includes re-exports. (h) In terms of greasy. (i) Excludes fruit juices. (j) Includes concentrates. (k) Excludes lead and silver-lead ores and concentrates. See footnote (j). (l) 1945-46, initial year of collection. (m) Year ended June 1965.

See headnotes on page 1192

	Year ended 30 June—							
	1902	1912	1922	1932	1942	1952	1962	1966
OVERSEA TRADE—continued								
Principal imports—	(a)	(a)						
Vegetable foodstuffs, etc. . . . \$m f.o.b.	7.2	7.4	8.0	5.2	12.2	50.0	56.2	(f)
Apparel, etc. . . . " "	21.8	32.4	62.0	30.8	65.4	407.2	208.4	272.1
Oil, etc. . . . " "	2.4	3.2	9.4	11.0	32.4	175.0	219.8	260.2
Metals, etc. . . . " "	15.6	28.0	45.6	14.8	143.6	786.8	630.6	1,275.2
Rubber " "	1.0	2.8	3.4	1.6	6.4	68.0	35.6	66.3
Paper, etc. . . . " "	3.2	5.2	8.8	8.8	8.6	137.6	115.8	156.5
TRANSPORT AND COMMUNICATION—								
Shipping—	(a)	(a)						(l)
Oversea vessels, } . . . No.	4,028	4,174	3,111	3,057	2,544	4,136	7,210	7,601
Entrances and } . . . mill. tons	6.5	10.0	9.1	11.4	10.8	18.2	37.7	43.3
Clearances								
Oversea cargo—								
Discharged . . . mill. tons(b)	n.a.	n.a.	2.4	3.0	5.5	14.4	20.3	27.7
Shipped . . . " " (b)	n.a.	n.a.	5.8	6.7	4.2	5.7	18.7	22.4
Interstate Vessels, } . . . No.	n.a.	9,605	9,782	7,957	9,100	7,524	10,127	10,604
Entrances and } . . . mill. tons	n.a.	13.1	12.8	11.1	12.9	15.8	19.7	26.6
Clearances								
Interstate cargo shipped . . . mill. tons(b)	n.a.	n.a.	5.5	4.0	10.0	9.0	14.8	17.8
Government railways—	(c)	(c)						
Route-miles(d) . . . '000	12.8	16.8	23.5	27.0	27.2	26.8	25.6	25.0
Passenger-journeys . . . mill.	115	228	335	303	475	501	443	441
Goods and livestock carried . . . mill. tons	15.5	25.5	31.5	26.1	38.9	44.3	55.6	64.8
Train-miles run . . . mill.	38.2	55.2	56.1	63.8	88.5	93.4	92.6	96.6
Tramways and omnibuses—								
Passenger-journeys—								
Trams and trolley-buses . . . mill.	n.a.	360	569	589	874	663	265	225
Omnibuses(m) . . . " "	n.a.	n.a.	n.a.	n.a.	193	356	453	460
Motor vehicles on the register(d)—								
Cars . . . '000	..	n.a.	102	420	451	1,026	2,303	2,810
Commercial vehicles . . . " "	..	n.a.	102	96	251	585	830	865
Civil aviation(e)—								
Plane-miles flown . . . mill.	..	..	..	2.5	7.8	41.8	41.2	52.3
Passengers carried . . . '000	..	..	..	57	152	1,829	2,666	3,764
Passenger-miles . . . mill.	..	..	..	n.a.	76	722	1,119	1,639
Freight carried { . . . '000 tons(f)	..	..	..	0.1	1.2	57.5	57.2	70.0
mill. ton-miles(f)	..	..	..	n.a.	0.9	26.7	26.1	33.9
Postal—	(a)	(a)						
Postal matter dealt with(g)								
mill. articles	365	680	778	887	1,124	1,482	2,101	2,442
Telegrams and cablegrams . . . mill.	9.9	13.3	16.8	13.9	26.1	29.8	21.6	24.3
Telephones—								
Instruments . . . '000	29	103	259	485	739	1,301	2,383	2,811
Lines . . . " "	25	85	196	364	531	928	1,719	2,010
Calls—trunk . . . mill.	n.a.	n.a.	14.0	28.9	45.3	69.4	76.5	106.5
local . . . " "	n.a.	n.a.	221	369	664	968	1,650	2,043
Broadcast listeners' licences(d) . . . '000	..	..	(h) 36	369	1,320	1,961	2,220	1,928
Television viewers' licences(d) . . . '000	..	..	..	..	..	..	1,424	1,615
Combined listeners' and viewers' licences(d) . . . '000	..	..	..	..	..	..	..	430
PUBLIC FINANCE—								
Commonwealth—								
Consolidated revenue fund—	(c)	(c)						(g)
Revenue . . . \$m	22	42	128	144	420	2,034	3,284	4,879
Expenditure . . . " "	8	30	128	144	420	2,034	3,284	4,879
Net loan fund expenditure(i) . . . " "	..	2	10	8	426	110	182	163
Taxation collections . . . " "	18	32	100	108	360	1,868	2,835	4,179
State—								
Consolidated revenue fund—								(l)
Revenue . . . \$m	56	82	170	200	304	776	1,609	1,947
Expenditure . . . " "	58	82	174	242	298	784	1,617	1,965
Net loan expenditure(i) . . . " "	18	32	68	12	16	396	396	477
Taxation collections . . . " "	6	10	36	66	114	126	354	496
Government securities on issue(j)—					(k)	(k)	(k)	(k)(q)
Commonwealth . . . \$m	..	12	708	638	1,340	3,838	3,119	3,144
State . . . " "	426	558	1,038	1,578	2,038	2,992	5,963	7,495
Total . . . " "	426	570	1,746	2,216	3,378	6,830	9,082	10,639
Overseas . . . " "	n.a.	388	824	1,044	1,312	1,112	1,424	1,504
In Australia . . . " "	n.a.	182	922	1,172	2,066	5,718	7,658	9,135

(a) Year ended previous December. (b) Tons weight plus tons measurement. (c) Year ended 30 June. (d) At end of period. (e) Regular internal services. (f) In terms of short tons (2,000 lb.). (g) Letters, postcards, letter-cards, newspapers, packets, parcels, and registered articles. (h) Year 1923-24. (i) Loan expenditure on works, services, etc. (j) At 30 June. (k) Expressed in Australian currency equivalents at ruling rates of exchange. (l) 1964-65. (m) Government and municipal only. (n) Cars and station wagons. (o) Utilities vans, trucks, etc. (p) Services in operation. (q) 1965-66.

See headnotes on page 1192

	Year ended 30 June—							
	1902	1912	1922	1932	1942	1952	1962	1966
PRIVATE FINANCE—								
Commonwealth note issue(a) . \$m	..	16	107	103	205	605	859	847
Cheque-paying banks—								
Advances(b)	188	238	364	522	648	1,634	2,265	3,157
Deposits(b)	186	300	578	638	962	2,706	3,883	5,346
Bank clearings(c)	676	1,324	3,404	3,162	5,656	24,320	50,216	78,891
Savings bank deposits(d)	62	118	308	396	548	1,784	3,470	5,254
Life insurance(c)(e)—								(j)
Ordinary—								
Policies '000	414	484	730	871	1,340	2,554	4,201	4,539
Sum assured \$m	216	218	362	570	926	2,424	8,743	12,481
Industrial—								
Policies '000	236	467	973	1,550	2,780	3,843	3,199	2,851
Sum assured \$m	10	20	60	134	254	508	707	823
Total—								
Policies '000	650	951	1,703	2,421	4,120	6,397	7,400	7,390
Sum assured \$m	226	238	422	704	1,180	2,932	9,450	13,304
SOCIAL STATISTICS—								
Age and invalid pensions—								
Pensioners '000(d)	..	90	144	256	336	420	691	744
Amount paid \$m	..	4.4	10.8	22.2	38.6	119.6	360.4	442.4
Child endowment—								
Children endowed '000(d)	..	..	..	..	910	2,518	3,420	3,763
Endowment paid \$m	..	..	..	..	22.6	93.2	132.8	176.4
Total Commonwealth social and health services(f) \$m	..	4.4	12.2	23.0	61.8	275.2	730.4	941.6
War pensions '000(d)	..	..	225	274	220	525	671	647
Service pensions '000(d)	..	..	14.0	14.8	15.0	63.6	134.8	170.5
Education(c)—								
Government schools—								
Schools '000	7.0	8.0	9.4	10.1	9.5	7.6	7.9	7.8
Staff (full-time)	14.5	17.0	26.1	33.8	32.1	36.7	60.0	73.1
Students	638	639	819	937	887	1,013	1,664	1,857
Non-Government schools—								
Schools '000	2.5	1.9	1.7	1.8	1.9	1.9	2.1	2.2
Staff (full-time)	8.3	7.8	8.8	10.0	11.4	13.3	18.1	18.3
Students	149	161	199	221	257	326	527	581
Universities—								
Number	4	5	6	6	8	10	10	12
Staff(g)	n.a.	249	482	703	1,416	3,132	3,901	5,105
Students '000	1.8	3.4	8.0	9.8	13.9	31.7	57.7	83.3
Public hospitals—								
Number	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(h)
Staff—medical '000	285	355	404	513	566	675	739	748
nursing	n.a.	1.1	1.5	3.2	3.9	6.9	10.5	11.3
In-patients, cases treated	n.a.	5.1	6.8	9.3	15.4	24.6	39.1	42.1
Police and prisons—								
Police '000	(i) 91	134	215	371	595	896	1,278	1,362
Prisons	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(k)
Prisoners '000	5.8	6.4	6.9	8.6	9.7	12.3	15.9	17.6
	n.a.	104	91	95	70	69	75	74
	4.3	3.1	2.9	4.2	3.2	4.8	7.2	7.5

(a) At the end of June. (b) Figures are for the June quarter. (c) Year ended previous December.
 (d) At 30 June. (e) Existing business in Australia. (f) Excludes war and service pensions.
 (g) Teaching and research staff. Includes part-time till 1952, then full-time only. (h) Year ended 30 June 1964.
 (i) Approximate. (j) Year ended December 1964. (k) At 30 June 1964.

APPENDIX

Some recent information which has come to hand since the various chapters were sent to press is given in summarized form in the following pages. In this issue of the Year Book the Appendix has been restricted to a few items of importance and no longer provides a selection of statistics from the various chapters. For the latest available statistics on subjects dealt with in chapters reference should be made to other publications issued by this Bureau, e.g. the *Monthly Review of Business Statistics*, the *Quarterly Summary of Australian Statistics*, the *Digest of Current Economic Statistics*, and the various mimeographed statements issued on particular subjects (see Publications issued by the Commonwealth Statistician, pages 1153-7 of the chapter Miscellaneous).

CHAPTER 3. GENERAL GOVERNMENT

Parliamentary government

State Governors, page 54

Queensland. Sir Alan Mansfield, K.C.M.G., succeeded Sir Henry Abel Smith on 21 March 1966.

Commonwealth Ministries, page 56

On 26 January 1966 Sir Robert Menzies resigned from the Prime Ministership and the Rt. Hon. H. E. Holt, M.P., was sworn in as his successor, with the following Ministry.

HOLT MINISTRY (from 27 January 1966)

(The State in which each Minister's electorate is situated is shown in parentheses.)

- | | |
|---|---|
| *Prime Minister—
THE RT. HON. H. E. HOLT, M.P. (Vic.) | Minister for Shipping and Transport—
THE HON. GORDON FREETH, M.P. (W.A.) |
| *Minister for Trade and Industry—
THE RT. HON. J. McEWEN, M.P. (Vic.) | Minister for Immigration—
THE HON. HUBERT OPPERMAN, O.B.E., M.P. (Vic.) |
| *Treasurer—
THE RT. HON. W. McMAHON, M.P. (N.S.W.) | Minister for Civil Aviation—
THE HON. R. W. C. SWARTZ, M.B.E., E.D., M.P. (Qld) |
| *Minister for External Affairs—
THE RT. HON. PAUL HASLUCK, M.P. (W.A.) | Attorney-General—
THE HON. B. M. SNEDDEN, Q.C., M.P. (Vic.) |
| *Minister for Primary Industry—
THE HON. C. F. ADERMANN, M.P. (Qld) | Minister for Health—
THE HON. A. J. FORBES, M.C., M.P. (S.A.) |
| *Minister for Defence—
THE HON. ALLEN FAIRHALL, M.P. (N.S.W.) | Minister for the Interior—
THE HON. J. D. ANTHONY, M.P. (N.S.W.) |
| *Minister for Supply—
SENATOR THE HON. N. H. D. HENTY (Tas.) | Minister for the Navy—
THE HON. F. C. CHANEY, A.F.C., M.P. (W.A.) |
| *Postmaster-General and Vice-President of the Executive Council—
THE HON. A. S. HULME, M.P. (Qld) | Minister for Air; and Minister assisting the Treasurer—
THE HON. PETER HOWSON, M.P. (Vic.) |
| *Minister for National Development—
THE HON. D. E. FAIRBAIRN, D.F.C., M.P. (N.S.W.) | Minister for Customs and Excise—
SENATOR THE HON. KEN ANDERSON (N.S.W.) |
| *Minister for Territories—
THE HON. C. E. BARNES, M.P. (Qld) | Minister for Repatriation—
SENATOR THE HON. G. C. MCKELLAR (N.S.W.) |
| *Minister for Works; and under the Prime Minister, Minister-in-Charge, Commonwealth Activities in Education and Research—
SENATOR THE HON. J. G. GORTON (Vic.) | Minister for Social Services—
THE HON. I. MCC. SINCLAIR, M.P. (N.S.W.) |
| *Minister for Labour and National Service—
THE HON. L. H. E. BURY, M.P. (N.S.W.) | Minister for Housing—
SENATOR THE HON. DAME ANNABELLE RANKIN, D.B.E. (Qld) |
| | Minister for the Army—
THE HON. J. M. FRASER, M.P. (Vic.) |

* Minister in the Cabinet.

State Ministers, etc., pages 57-9

Victoria. The Minister of Transport is the Hon. E. R. Meagher, *not* E. L. Meagher.

Queensland. Following the 1966 elections a new ministry took office as from 10 June 1966. The holders of office were unchanged but the portfolio of Labour and Industry was changed to Labour and Tourism.

Leaders of the Opposition, page 59

Queensland. Mr. J. E. Duggan resigned as Leader of the Opposition on 11 October 1966, and Mr. J. W. Houston was chosen as his successor.

South Australia. Consequent on the resignation of Sir Thomas Playford on 13 July 1966 as Leader of the Opposition, Mr. R. S. Hall succeeded him in that office.

Franchise—Commonwealth Parliament, page 60

In 1966 the franchise was extended to entitle a person who is less than twenty-one years of age, has lived in Australia for six months continuously and who is, or has been, on 'special service' outside Australia as a member of the Defence Force, to vote at elections as if his name appeared on the Roll. 'Special service' takes the same meaning as that term in the Repatriation (Special Oversea Service) Act and means, in relation to a person, service during a period when he is outside Australia and he or his unit is allotted for special duty in a special area.

Members of the Commonwealth Parliament, pages 63-5

Senator the Hon. Sir Shane Paltridge died on 8 March 1966 and Senator R. D. Sherrington died on 17 March 1966. In accordance with section 15 of the Constitution Senators R. G. Withers and W. C. Heatley, respectively, were appointed to fill the vacancies until the next election. The deaths of Messrs. G. W. Shaw, M.P. (Dawson, Qld), and J. S. Cockle, M.P. (Warringah, N.S.W.) were reported on 8 March 1966 and 16 August 1966, and the resignation of the Rt. Hon. Sir Robert Menzies, K.T., C.H., Q.C. (Kooyong, Vic.) was reported on 8 March 1966. By-elections were held for the seats of Dawson and Kooyong at which Messrs. R. A. Patterson and A. S. Peacock, respectively, were elected. The vacancy in the Warringah electorate will not be filled until the 1966 general election. Senator C. W. Sandford died on 21 October 1966 and a successor will be elected in November.

CHAPTER 5. MANUFACTURING INDUSTRY**Factory development, page 94**

The following table gives a summary of operations in manufacturing industries during 1964-65.

FACTORIES: SUMMARY, 1964-65

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Factories No.	24,368	17,925	5,962	5,887	4,734	1,805	174	187	61,042
Persons employed(a)	508,979	432,413	116,246	116,183	58,097	32,580	1,210	3,227	1,268,935
Salaries and wages paid(b) . \$mill.	1,230.0	1,028.5	252.4	274.2	120.0	76.5	3.5	8.7	2,993.7
Value of power, fuel, light, etc. used	217.5	125.2	38.7	39.3	26.0	18.3	0.9	0.6	466.6
" materials used(c)	3,212.7	2,426.0	824.7	668.9	329.7	196.0	4.5	11.4	7,674.0
" production(d)	2,521.5	1,949.7	478.4	498.6	260.6	167.3	6.7	14.4	5,897.1
" output(e)	5,951.7	4,500.8	1,341.9	1,206.8	616.4	381.5	12.1	26.4	14,037.7
" land and buildings	1,539.2	1,105.7	237.4	256.5	131.7	209.0	6.8	21.6	3,508.0
" plant and machinery . . .	1,564.4	1,127.9	350.3	388.9	163.5	155.3	6.1	9.7	3,766.3

(a) Average over whole year; includes working proprietors. (b) Excludes drawings by working proprietors. (c) Includes also value of containers, packing, etc., replacements of tools and repairs to plant. (d) Value added in process of manufacture (i.e. value of output less value of materials and fuel, etc. used). (e) Value at the factory of goods produced.

CHAPTER 8. POPULATION**Population recorded at Censuses, page 192**

Preliminary results of the Census of 30 June 1966 compiled by field personnel during the taking of the Census are given in the following table. Particulars of full-blood Aborigines are excluded from this table.

CENSUS OF AUSTRALIA, 30 JUNE 1966: PRELIMINARY RESULTS

State or Territory	Population Census, 30 June 1966			Increase 1961-1966		
	Males	Females	Persons	Numerical increase	Percentage increase	Average annual rate of growth
New South Wales ..	2,124,645	2,110,385	4,235,030	318,017	8.12	1.57
Victoria ..	1,613,286	1,604,546	3,217,832	287,719	9.82	1.89
Queensland ..	842,201	819,039	1,661,240	142,412	9.38	1.81
South Australia ..	547,802	542,921	1,090,723	121,383	12.52	2.39
Western Australia ..	425,872	409,698	835,570	98,941	13.43	2.55
Tasmania ..	187,267	183,950	371,217	20,877	5.96	1.16
Northern Territory ..	21,319	15,847	37,166	10,071	38.17	6.53
Australian Capital Territory ..	49,910	46,003	95,913	37,085	63.04	10.27
Australia ..	5,812,302	5,732,389	11,544,691	1,036,505	9.86	1.90

Growth and distribution of population, pages 193-4

Revised estimates of the population of States and Territories at 31 December 1961 to 1965, consequent on the preliminary 1966 Census results, are as follows.

ESTIMATED POPULATION(a), BY SEX: STATES AND TERRITORIES
DECEMBER, 1961 TO 1965

At 31 Dec.—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
MALES									
1961 ..	1,985,191	1,480,119	778,367	496,079	380,377	184,321	15,335	32,721	5,352,510
1962 ..	2,013,172	1,503,723	793,144	506,568	390,938	186,797	15,974	36,448	5,446,764
1963 ..	2,044,137	1,530,737	806,622	518,053	401,182	188,846	16,913	40,319	5,546,809
1964 ..	2,076,850	1,565,345	821,165	531,835	410,058	189,574	17,788	43,970	5,656,585
1965 ..	2,112,469	1,595,297	834,319	543,401	421,341	191,415	19,159	48,293	5,765,694
FEMALES									
1961 ..	1,961,331	1,464,697	749,939	486,516	366,556	179,852	10,014	29,610	5,248,515
1962 ..	1,994,254	1,491,802	766,828	498,643	376,961	182,723	10,583	33,096	5,354,890
1963 ..	2,027,821	1,520,060	781,988	511,494	386,686	185,006	11,465	36,954	5,461,474
1964 ..	2,061,862	1,554,995	797,222	525,996	394,865	185,996	12,295	40,552	5,573,783
1965 ..	2,098,806	1,586,621	811,126	538,348	405,738	188,086	13,688	44,445	5,686,858
PERSONS									
1961 ..	3,946,522	2,944,816	1,528,306	982,595	746,933	364,173	25,349	62,331	10,601,025
1962 ..	4,007,426	2,995,525	1,559,972	1,005,211	767,899	369,520	26,557	69,544	10,801,654
1963 ..	4,071,958	3,050,797	1,588,610	1,029,547	787,868	373,852	28,378	77,273	11,008,283
1964 ..	4,138,712	3,120,340	1,618,387	1,057,831	804,923	375,570	30,083	84,522	11,230,368
1965 ..	4,211,275	3,181,918	1,645,445	1,081,749	827,079	379,501	32,847	92,738	11,452,552

(a) Revised in accordance with preliminary results of the 1966 Census. Excludes full-blood Aboriginals.

Mean population, page 198

Mean populations of States and Territories, re-calculated consequent on revision of the estimated populations, are as follows.

**MEAN POPULATION: STATES AND TERRITORIES
1961 TO 1966 AND 1961-62 TO 1965-66(a)**

Year ended—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
CALENDAR YEARS									
Dec. 1961 ..	3,913,994	2,926,032	1,516,273	970,090	737,568	353,623	26,266	58,852	10,502,698
" 1962 ..	3,974,751	2,978,093	1,545,263	993,063	756,715	359,486	27,155	66,179	10,700,705
" 1963 ..	4,039,325	3,031,522	1,575,609	1,016,283	776,190	364,442	28,707	73,298	10,905,376
" 1964 ..	4,104,368	3,093,607	1,605,048	1,043,322	794,773	367,619	30,584	80,497	11,119,818
" 1965 ..	4,172,506	3,160,736	1,633,627	1,068,560	812,339	369,769	32,836	88,399	11,338,772

FINANCIAL YEARS

June 1962 ..	3,945,483	2,953,192	1,529,988	981,947	746,533	356,725	26,658	62,673	10,603,199
" 1963 ..	4,006,566	3,003,950	1,560,911	1,004,494	766,614	362,228	27,852	69,557	10,802,172
" 1964 ..	4,072,124	3,061,530	1,590,037	1,029,471	785,964	366,400	29,616	76,963	11,012,105
" 1965 ..	4,137,256	3,128,135	1,619,565	1,056,461	802,858	368,389	31,551	84,395	11,228,610
" 1966 ..	4,207,391	3,190,526	1,645,922	1,080,181	824,722	372,038	34,369	92,564	11,447,713

(a) Revised in accordance with preliminary results of the 1966 Census. Excludes full-blood Aborigines.

CHAPTER 11. EMPLOYMENT AND UNEMPLOYMENT

WAGE AND SALARY EARNERS IN EMPLOYMENT

Civilian employees, pages 325-6

The following table shows particulars of the estimated numbers of wage and salary earners (excluding employees in rural industry, private domestic service and defence forces) in each State and Territory at June 1966, with revised figures for June and December 1965.

WAGE AND SALARY EARNERS IN CIVILIAN EMPLOYMENT (EXCLUDING EMPLOYEES IN RURAL INDUSTRY AND PRIVATE DOMESTIC SERVICE, AND DEFENCE FORCES)

('000)

—	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T. (a)	Aust.
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JUNE 1965

Males ..	976.9	723.5	329.1	239.9	171.5	78.4	9.5	24.2	2,553.1
Females ..	412.6	316.3	123.1	93.4	62.7	28.1	3.2	11.5	1,051.0
Persons ..	1,389.5	1,039.8	452.2	333.3	234.2	106.5	12.7	35.7	3,604.1

DECEMBER 1965

Males ..	988.3	729.5	324.1	240.8	177.6	80.4	9.8	25.6	2,576.1
Females ..	424.1	322.5	125.2	94.9	64.9	29.5	3.4	12.3	1,076.8
Persons ..	1,412.4	1,052.0	449.3	335.7	242.5	109.9	13.2	38.0	3,652.9

JUNE 1966

Males ..	996.7	734.3	336.7	242.3	180.4	81.1	10.5	26.0	2,608.0
Females ..	427.1	328.3	128.8	97.6	68.0	29.8	3.6	13.1	1,096.4
Persons ..	1,423.8	1,062.6	465.5	339.9	248.4	110.9	14.1	39.1	3,704.4

(a) Includes persons employed in the Australian Capital Territory who reside in adjoining areas.

CHAPTER 20. PRIVATE FINANCE

Trading bank charges, page 705

From 1 October 1966 the service charges made by trading banks were increased. The following are the current charges.

Basic maintenance current account fee. Sixty-five cents quarterly (non-rebated).

Ledger activity fee (quarterly). Up to $\frac{1}{4}$ folio (20 entries), 25 cents; over $\frac{1}{4}$ folio to 1 folio, 80 cents; over 1 folio to 2 folios, \$2.25; over 2 folios to 3 folios, \$5; over 3 folios to 4 folios, \$7.75; over 4 folios to 5 folios, \$10.50; over 5 folios to 6 folios, \$13.25; over 6 folios to 7 folios, \$16; over 7 folios to 15 folios, \$16, plus \$2.25 per folio or part thereof exceeding 7; over 15 folios to 35 folios, \$34, plus \$1.75 per folio or part thereof exceeding 15; over 35 folios, \$69, plus \$1.25 per folio or part thereof exceeding 35. Rebates of one free folio (or equivalent of approximately 40 entries) will be allowed for each complete \$1,000 minimum quarterly credit balance. Where rebates are applicable the number of free folios is deducted before the activity fee is calculated.

Collection fee on cheques, etc., deposited. Up to 20 cheques per quarter, free; 21 to 100, 60 cents, plus 30 cents per 10 cheques or part thereof exceeding 20; 101 to 500, \$3.00, plus \$1.50 per each 50 or part thereof exceeding 100; 501 to 1,000, \$15, plus \$3 for each 100 or part thereof exceeding 500; 1,001 to 10,000, \$30, plus \$15 per each 500 or part thereof exceeding 1,000; 10,001 to 50,000, \$300, plus \$20 per each 1,000 or part thereof exceeding 10,000; 50,001 to 100,000, \$1,100, plus \$75 per each 5,000, or part thereof exceeding 50,000; over 100,000, \$1,850, plus \$125 per each 10,000 or part thereof exceeding 100,000.

LIST OF SPECIAL ARTICLES AND MISCELLANEOUS MATTER CONTAINED IN PREVIOUS ISSUES

This list refers to special articles and other more or less important miscellaneous matter which have appeared in previous issues of the Year Book but which are not included, or are included in abbreviated form only, in the present issue.

The figures below indicate, respectively, the number and page of the Year Book to which reference is made. In cases where matter was published in more than one previous issue, the volume and page for the last issue containing such matter are given. For possible revisions, however, issues immediately following the one referred to should also be consulted.

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GENERAL INDEX*

This index is preceded by a list of the special articles, etc. which have appeared in previous issues of the Year Book. The illustrations contained in this issue are listed under the various chapters in the Contents (pages vii-xii). Subject matter extending continuously over more than one page is indexed according to the first page only. *Where more than one reference to a subject is given, the chief reference, wherever it has been possible to determine it, is indicated by italic type. Two references to a subject so indicated signify major, and approximately equal, importance.*

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